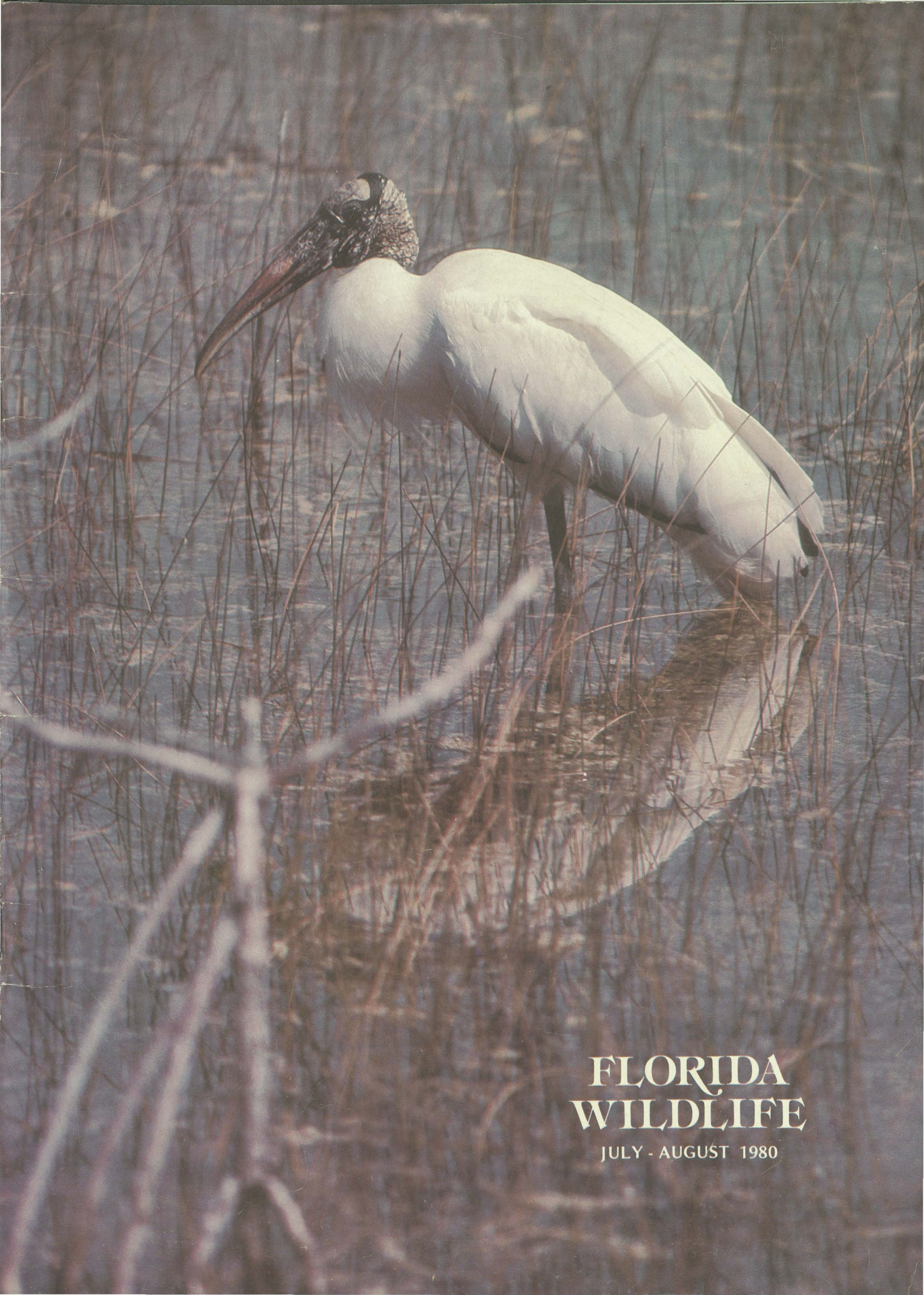

FLORIDA WILDLIFE

JULY - AUGUST 1980

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FLORIDA WILDLIFE

VOLUME 34, NO. 2 ● JULY - AUGUST 1980

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THE COVER

A wood stork—wood ibis or iron head as it's also called—is no real beauty at close range, but it is an interesting part of the Florida wetlands scene.

Photo by Cliff Bickford

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The Legend of BILLY STRAYHORN

Drawing by Peggy Perkerson

If asked to name the top fisherman, you'd probably think of some of the famous professionals on the tournament circuit or anglers who write about themselves in outdoor magazines. But when it comes to the number of lunker and trophy bass turned in to taxidermy shops, no one comes close to Billy Strayhorn. Comparing name anglers to Billy is like comparing firecrackers to a moon rocket launch.

By Charley Dickey

You might not know the name of the greatest bass angler in the state. He's shy of publicity but you may have run across him.

It took me five years to run him down. When I first began hearing of his exploits, I thought they were only exaggerated fish tales. As I came across Billy's tracks from one end of the state to the other, I believed his catches were wispy rumors grown fat in the retelling. Then I finally realized Billy was a living legend, although an elusive one.

I first got wind of him five years ago when I stopped by a country store on my way to fish a lake in the northern part of the state. As I sipped a cold drink, the store owner said, "Going fishing? Man, you should have been here an hour ago. A little scrawny fellow stopped by with the biggest string of bass I ever seen. He had an ice chest full and every last one of them was a wall-hanger!"

"Well, for gosh sakes, where did he catch them and what was he using?"

"Mister, he wasn't talking. He was showing! I didn't even get his name but his panel truck was from the state capital."

The next two days I visited every fish camp on the lake but no one knew about any super catches. I happened to stop by another country store and there were some old codgers sitting around. One of them said, "You should of been here three days ago. A little runt of a man come by with three Poor-Boy coolers full of big bass. Every dadblame one of those fish looked like a record."

"Where'd he catch them?" I asked.

"I wish I knew. If I did, I'd be there right now! He was proud to show off those big bass but he clammed up like a kid in a cookie jar when we started asking questions."

A couple of months later I stopped at a filling station down in the southern part of the state. After the kid pumping gas looked my boat over, he said, "You ought to been here yesterday. A guy stopped by with the biggest catch of bass I ever saw. Every slapdam one of them was a whopper."

"Was he a little sandy-haired fellow wearing blue jeans and driving a panel truck?" I asked.

"Yep, that was him. You know him? Man, whatever the answer is to catching big bass, he's got it!"

I forgot about fishing and checked all of the local docks. The operators said about the same thing. "If he'd caught a string like that out of my camp I'd still be taking pictures of it."

A few weeks later I struck the phantom's trail in the eastern part of the state. It was the same story. The mystery man had driven up to a filling station in a panel truck. He asked the owner and all the loafers if they'd like to see a big catch of largemouth bass. Of course, they did and he lead them out to the truck and showed them a dozen monsters. When they started asking questions, he smiled and left.

Hoping to meet the phantom, I stopped at so many country stores the next three years I could tell you where they kept the Red Man chewing tobacco before I went in. It was surprising how many store owners had seen the fisherman with a panel truck loaded with big bass. Nobody knew his name and I was always a day to two weeks behind him.

I was desperate to meet him. What a great magazine article he'd make! Maybe he'd even take me fishing and tell me some of his secrets! Two points about him had become clear. He liked to show off his fish. Secondly, he never showed them at fish camps but always at country stores or filling stations away from lakes.

It took me two more years to get the phantom's name. I began leaving my business card at country stores and stations all over the state. I offered a $25 reward to the person who phoned me the phantom's license number.

The call finally came through and it cost me some extra dollars at the license bureau to find out who owned the truck. I drove up to the state capital, located the phantom and for three days I did a tail job that would have been the envy of Jim Rockford or any of those TV detectives. The phantom was Billy Strayhorn.

On the fourth morning when he pulled into that country store where I had first heard about him five years before, I skidded up behind him. He saw me striding towards his truck, smiled and said, "Want to see a nice catch of big bass?"

I looked at a dozen monsters that I knew had come from different lakes all over that end of the state. Billy smiled as I admired the fish and said, "It's easy when you know how."

I knew how. Billy had never caught a lunker bass in his life. He worked for Windt's Taxidermy at the capital and his job was driving all over the state to collect fish that anglers had left at camps to have mounted.

I got back in my car and drove home. There wasn't any point in spoiling Billy's fun, even though he'd caused me a lot of sleepless nights. Afterall, he gave those people at the country stores a lot to talk about.

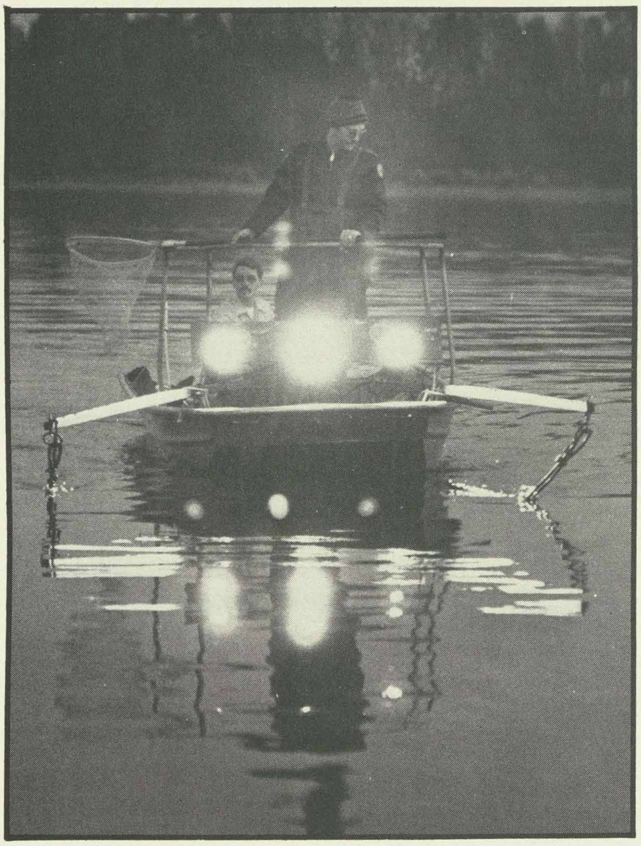
Billy just wanted to be a hero. I kind of knew how he felt. I'd like to drive up to a country store with a truck full of trophy bass and watch everybody gawk! ■

Getting a line on

. . . is the goal of the Game and Fresh Water Fish Commission's bass study biologists.

By FRANK RUIZ

Orlando Sentinel-Star



Right away it becomes obvious that this isn't your run-of-the-mill fishing trip.

When these fellows go afishing they don't take along rods, reels and line like most anglers. Instead, they use an electric current to stun the fish and then simply scoop the floating quarry in their nets and dump them into the holding tank where a little Quinaldine tranquilizer keeps them quiet. And they don't settle for the 10-a-day limit. These guys take as many as they can find.

No, it isn't a poaching ring. These "fishermen" are a group of fisheries biologists and fish management specialists who are in the midst of a three-year Lake Tohopekaliga bass study.

The objective is to compile growth data on largemouth bass in relation to the recent drawdowns of the lake.

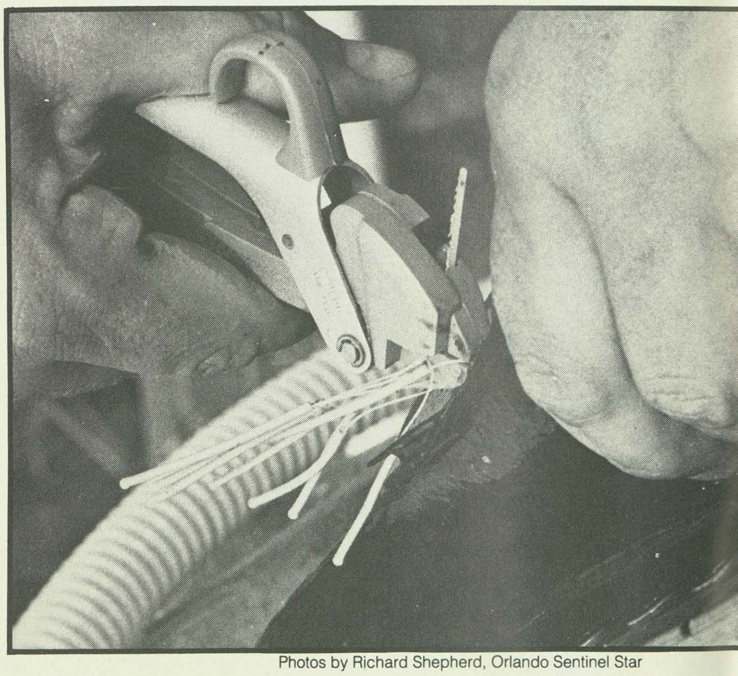
So far, the Game and Fresh Water Fish Commission bunch has tagged more than 2,900 Florida bass and they expect to reach the 5,000 mark by 1981.

The study began in February of last year, and so far 180 tagged fish have been returned. "We're running right at a 10 percent return rate," said project spokesman Ed Moyer. "But already we're beginning to gather important and interesting data about Toho fish."

Moyer points out that an unexpected sidelight has been cast on the tourist industry. His statistics show that 30 percent of all returned fish are being caught by out-of-state fishermen.

This figure, Moyer said, runs neck-and-neck with the 30 percent returns from the local (Kissimmee and St. Cloud) fishermen.

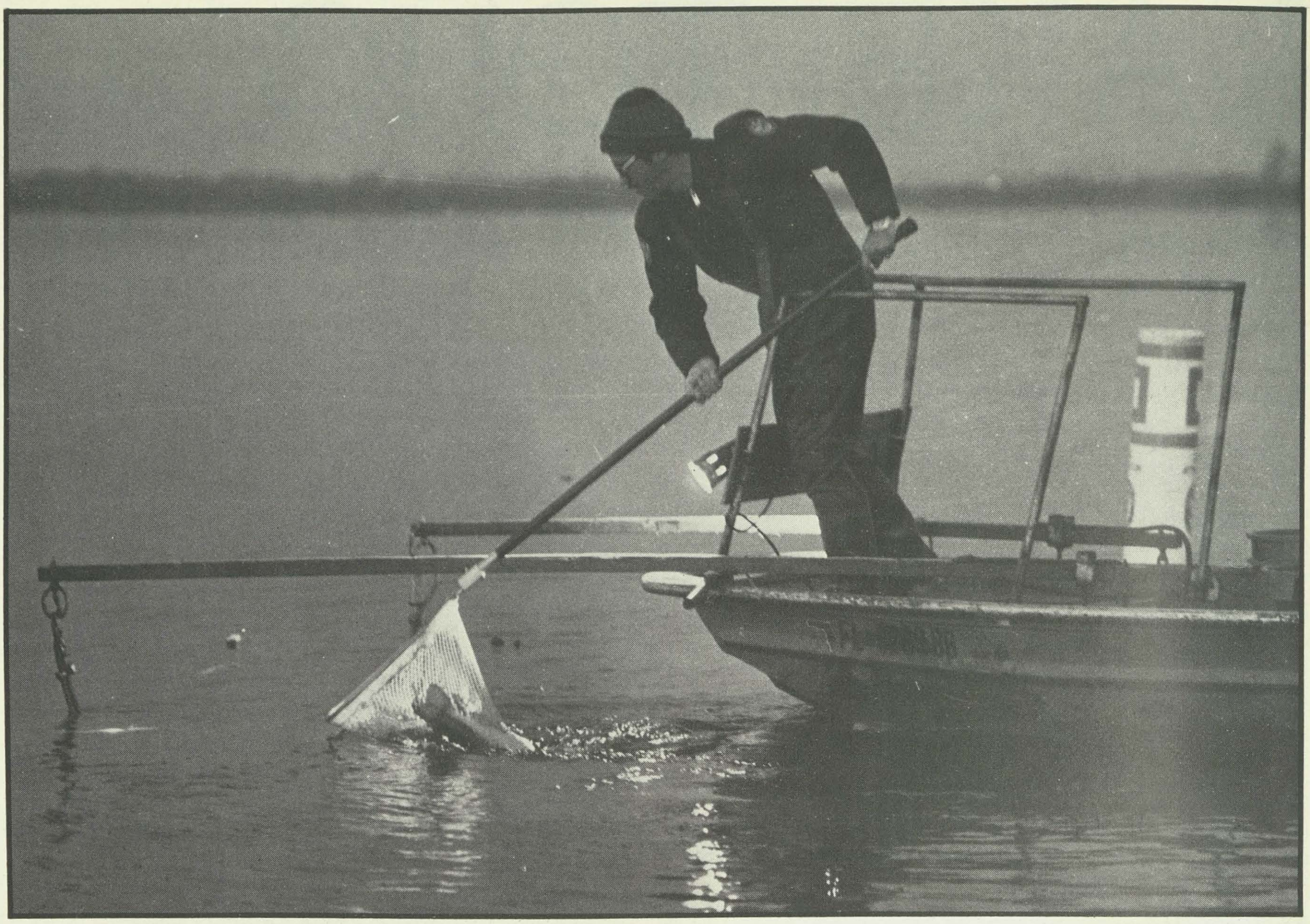
But the largest group of the fish—40 percent—



Photos by Richard Shepherd, Orlando Sentinel Star

Fish were concentrated during drawdown, enabling biologists, working at night, to gather large numbers for tagging. Tag is being applied in photo above. Biologist Chris Michael opposite page, hauls in a hefty largemouth which will be tagged as part of a three-year study of Tohopekaliga bass.

LAKE TOHO



Line on LAKE TOHO

have been recorded by anglers from other parts of Florida.

"I know these figures sound like a hard lump to swallow," Moyer quipped. "But they mean a great deal. For one thing it means that the lake is drawing good numbers of fishermen from all over the state, and a very significant number of tourists."

So while the primary objective is still to study the growth of the fish, it appears the Commission will also learn something it hadn't expected at the onset of the program.

The secondary purpose of the study is to accumulate data on the movement of the bass. Lake Tohopekaliga has experienced two drawdowns in recent years. The first took place in 1972. Then, during the 1978-79 period the lake was again drawn down to dry the bottom and re-establish suitable growth of native plant life.

It was during this latter project that the Kissimmee-based biologists initiated the study. During that time, the fish were congregated in large numbers and, working at night, the biologists were able to tag hundreds of fish of various sizes.

But it's only now that the first group of fish have cycled one year that the project leaders are able to begin gathering conclusive information from returned fish.

"So far we've been able to establish that the fish are growing at the rate of one and a half to three pounds per year and about three inches in length," Moyer said.

According to Moyer, this spring should produce the "super-year class" of fish that were spawned during the drawdown. It's his belief that fishermen will enjoy a very good bass-fishing year. Particularly fly fishermen who fish along the shallows.

As with most projects, sometimes there are problems. With this one, perhaps the most recurrent problem is the failure of anglers to record catches of tagged bass.

Either they don't see the tags, Moyer said, or they just ignore them. Since algae growth on the tags often makes them difficult to see, the biologists have begun using two tags on all fish weighing more than five pounds.

During the recent national BASS tournament on the lake, only two tagged fish were brought in by the 260 anglers. Both were caught by one fisherman. Apparently the man didn't even know the fish he had caught were tagged, but the biologists were on hand at the spot where the fish were being released and carefully recorded the necessary information.

Most of the calls these researchers get come from the local fish camps that weigh and measure the fish as the anglers bring them. But not long ago, the Fisheries office received a call from Louisville, Ky., about a 14-pounder which someone had brought into the taxidermist's for mounting. Even the taxidermist had not noticed the tag until he ran his hand along the spine of the fish and felt the numbered tag protruding from the fin.

The fish can be released alive if the angler so desires, Moyer says. "Basically what we want to know is the exact size and weight of the bass and the location of the catch. That's why we recommend taking the tagged fish to either Scotty's, Southport, Big Toho, Red's or Jannis' fish camps to be properly recorded," Moyer said. "Then the people can do what they want with them."

One fish played the game once too often. One of the first to be tagged, the bass was first caught by the study group at the southern end of the lake. Then he was caught by a fisherman who, after recording the catch, released him. The fish was then scooped up by the biologists' nets once more, this time at the northern end of the lake, recorded and released again. But the fish had run out of luck. A local angler caught the bass a fourth time and after bringing it in for tabulation, promptly took it home for dinner.

If you're on Lake Toho anytime soon, don't let these guys bother you. From a distance, they look like just another pair of anglers, their heads bobbing about the panicum grass as they work the small shocking boat easily across the pickerel weed and the maidencane patches.

They try to stay away from any concentrations of fishermen. And though they aren't ready to offer fishermen a complete study of the fish habitats on the lake, they have been picking up some current information in their daily work.

For instance, though many speckled perch fishermen are still romping over the deeper waters trailing deep-rigged baits, these fellows are finding heavy concentrations of specks in the shallows. A mixture of male and female fish have been caught in their nets and most of the females had released their roe.

Also, most of the bass the Commission biologists have been catching were in about three feet of water, along the shallow grass flats of Brown's Point. ☐

Photos by Richard Shepherd, Orlando Sentinel Star

A deft scoop of the net by Chris Michael scores another largemouth temporarily stunned by the electric shocker in photo on opposite page. Fish management specialist Rodney Bonebreak, left, weighs Toho bass captured by electro-fishing rig.

FISHING

By CHARLES WATERMAN

You COULD get a lemon when buying a new rod, but the odds are against it.

It's pretty hard to buy a bad fishing rod these days, even if you go to a discount store and work at it. But rod buying has gotten all tied up with prestige. Even color can get pretty important.

Most graphite rods are black or so dark they can pass for black at a distance. Since graphite came on as a super space-age material it became stylish to make glass rods black too. There is nothing wrong with glass. The most popular of the newest materials is boron. It's most expensive.

As the years go by it may be that graphite or boron will be the final word on rod material. In the meantime it is not necessary to sneak through alleys just because you own a glass rod. Some of the best graphites have some glass in them and to the average fisherman it's unimportant where the glass leaves off and the graphite begins, or even where boron appears.

The mundane truth is that good or bad rods (mostly good these days) can be made out of any one of these materials or combinations of them. If I were going to buy a new rod, bait, spinning or fly, I'd pay less attention to what it was made of than to what it would do. If I were getting a boron or graphite, however, I would try to be certain that it hadn't been on the shelf for a long while, not because time would cause it to deteriorate but because the earliest models of any material are least likely to be durable.

I goofed on this myself three years ago when I bought a new graphite which blew apart after a modest amount of use. The manufacturer replaced it. Seems they'd had trouble with the early models and that's what I had, even though it was brand new. The dealer and I went through his storage area and found it had been living at the bottom of the pile while later rods were sold from the top. If you're not a regular buyer of tackle, I'd be slow to get a new model of rod before it's been proven by hard fishing. They *do* sometimes go on sale before the wrinkles are ironed out.

There are some special characteristics of rod materials, it says here, but a carefully designed stick can disguise or emphasize the characteristics of the material. They say a graphite rod is "quicker" than glass, but it isn't necessarily so. They say boron can very nearly duplicate the characteristics of bamboo, but except in freshwater trout country few anglers of today have ever used bamboo.

Casting power is more a matter of taper and overall design than of material, although graphite is moving in there with the flyrod crowd.

"Sensitivity," that nebulous quality demanded by plastic worm fishermen especially, and by a lot of other people who want to set a hook just before a fish takes it, is a product of light weight and stiffness rather than softness. Graphite has an advantage in that it can be lighter than glass.

Well, maybe we can say there are two kinds of sensitivity, visual and mechanical. If you have a very soft tip you can see it bend but you *will* feel a stiff tip before feeling a soft one. None of this is particularly important to anyone who isn't being pretty delicate but it shows how ethereal rod qualities are.

Rod builders, I think, can get just about the qualities they want but they may not want the same things desired by a majority of fishermen.

An expensive rod is likely to have good hardware, good ferrules, a good grip and a good company back of it. I am not saying there's no difference in rod quality.

I *do* say that material alone is not a gauge of a rod's usefulness for your particular purpose.

Florida Shad

The Florida shad is an important fish, apparently able to withstand heavy fishing pressure. There may be a time when it will have greater status, along with other fish now usually considered on the second string.

The shad is now being studied more and that's a good sign. Biggest furor in the shad business lately is the discovery that some of those caught in the St. Johns River were tagged in Canadian waters. Until recently, the route of shad at sea was little understood and nobody seemed to care much.

Anyway, the Florida shad are supposed to die after they spawn in fresh water. Shad from farther up the Atlantic coast survive for more than one trip to the spawning areas. The Florida shad are about 4 years old when they spawn and there isn't much explanation for that. At one time it was said they simply grew fast and aged rapidly in the South. But if they go to Canada this doesn't quite fit.

We don't know that *all* Florida shad go as far north as New Brunswick. We don't know that *all*

Florida shad die after their first spawning, although it seems likely. The rather consistent size of the Florida fish indicates one spawning trip is all they make. I don't know the status of the "jack shad," those few very small fish that show up with the bigger ones. Do they come home again? Then, of course, there's the exceptional contest winner who may have something wrong with his (or her) glands.

Fishing Bass Beds

I've had some letters again about bass fishing over spawning beds, the writers firmly opposing it. Although discussion of it could go on and on, I think the situation can be summarized something like this:

1. There are many ways of fishing bedding areas, some of them sporty and some of them pretty sneaky. Sighting a mama bass on a bed and figuring a way of snagging her, of course, is bad news. Simply fishing the area with lures intended to infuriate bedding fish, male or female, is hard to fault. And if you put the fish back (many talk of this and few do it) I don't care how you fish as long as you don't hurt 'em.

2. When the bass from a large area concentrate on a small patch of spawning bottom it is possible to take too many *big* fish from the nests. This has no appreciable bearing on the actual numbers of resident bass, but it *does* remove too many big ones too fast. I have noted some lakes where enormous catches of whoppers were made one year and the following year they just weren't there to be caught. They went somewhere and I think they went with hushpuppies.

3. I have heard the argument that the large fish caught from the beds represent the hardier strains, most likely to grow big, and that those are the most valuable fish we have. Some biologists tell me that the heredity business is of no importance in this case.

4. The destruction of beds by propellers and waders ruin large quantities of eggs and also make scattered eggs available to predators. This reduces the hatch. The biologists tell me that this loss is immaterial in the big picture—that there are enough eggs to hatch anyway, regardless of what we do, the female bass laying more eggs than could possibly be needed.

The final judgement must be as to whatever is needed to protect the bass where and when they need protection. If we have more eggs than we need and more fingerling bass than we need, something is happening to them between 2 inches and 2 pounds in most habitat. They need help over the risky periods. That is why "slot limits" are set in some states to protect them when they are most vulnerable.

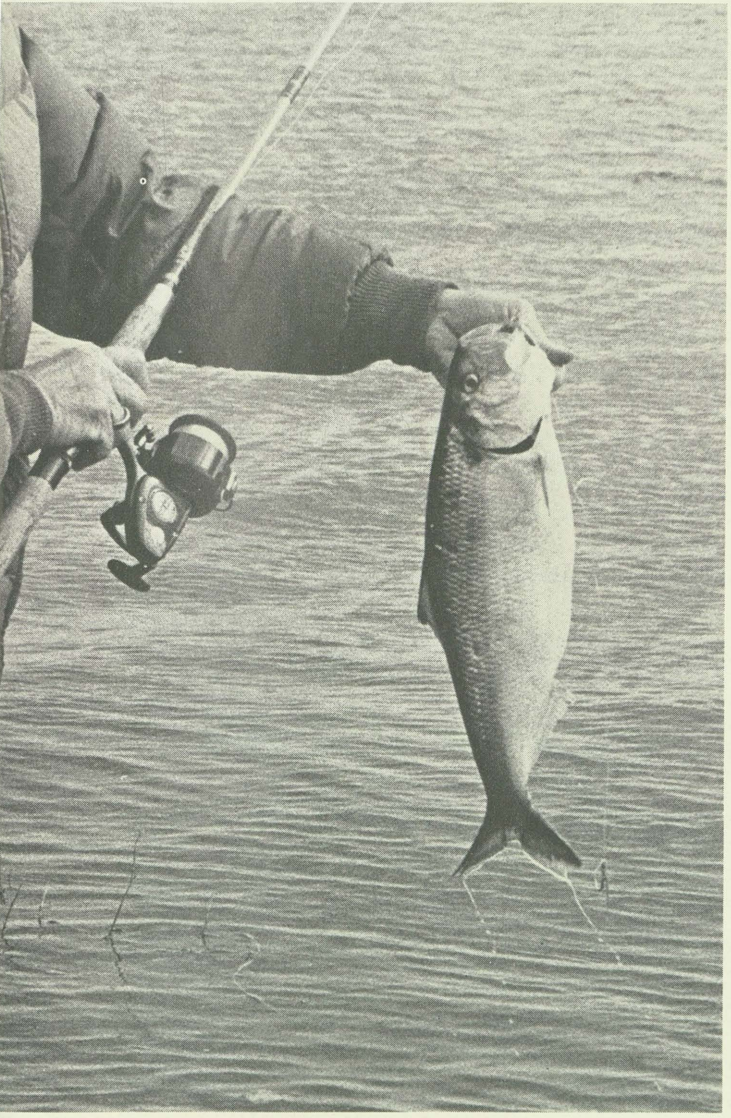
Most of us try to make it too simple.

Chumming

Chumming is one of the salt water arts, ranging from towing a can of sardines (with a few holes punched in it) behind a skiff to building a slick with pounds of bait. Most of us think of the latter, having seen sausage grinders mounted on the sterns of all sorts of boats. Chumming gets into fresh water too with both live and cut bait.

Perhaps the most dramatic chumming I've seen was off Bermuda where the charter boat skippers and their mates issue hogmouth fry (a baitfish largely made up of mouth) to what appears to be the whole ocean but the bait is carefully spilled (both surface and deep down at the same time) to take advantage of currents and the bottom formation.

Photo by Charles Waterman



American shad is prime gamester in St. Johns, deserving greater status than it is now given.

Just almost anything salty that swims, large or small, is likely to appear in a Bermuda chum line.

If that is big-time chumming, the operations of some Florida bonefish guides might be called precision chumming. It involves only a few handfuls of chum but has been a mainstay of the reputations of guides operating in the Keys, and especially in Biscayne Bay within sight of Miami Beach.

Bill Curtis, a veteran operator in the Biscayne neighborhood, may be called the father of Biscayne bonefish chumming but there are several other operators using the method, most of them having had some tips from Curtis at one time or another.

My own clumsy efforts at bonefish chumming have consisted of hunting up briskly moving channels leading from flats into deep water and putting almost anything fishy into them. My success has been spotty to say the least.

I recently made a trip with Curtis and was surprised to see that he didn't go to swash channels or other bottom grooves, but knew just what spots on the flats could give itinerant bones a sniff of chum. Since a bonefish is said to smell a healthy, live shrimp at considerable distances, he should have no trouble with smelly pieces of shrimp. Shrimp pieces, as Frank Garisto (another famous Miami guide) says, can multiply the scent by hundreds of times.

Curtis chooses a spot with a light-colored bottom, puts out a heaping handful of shrimp pieces, maneuvers the boat into an ideal casting position and lets it go at that. The scent will toll fish from great distance, even though the particles of shrimp themselves will sink to the bottom almost immediately. It works and the casting distance is already established. After all these years, of course, Curtis can see a bonefish where I'm barely certain there's a bottom. He can tell you where to cast if you can't even make out the shadows. His success percentages are phenomenal.

It's a lot more precise than chunking hunks of fish into a swash channel or tossing conch pieces into a mud, the way we've done it in the Bahamas. A "mud," for those who haven't paid attention, is a stirred-up patch of the bottom caused by feeding dish.

Finding Fish

Not long ago I wrote something about the ability of observant fishermen to locate fish by above-water signs. It's usually the veteran angler who does it, generally familiar with the surroundings he fishes in regularly and noting the slightest changes or movements. Usually I don't look for the right things.

Although a wiggle in the lily pads or weeds can be a gator, a mudfish or an entangled snapping turtle, it can also be a bass. The other day I did myself proud.

It was a poor fishing day in a small, weedy forest lake. We had covered more than an hour of shoreline pockets without a strike, using plugs, spinnerbaits and flyrod bugs. We hadn't raised a fish and we hadn't seen one move.

Then we saw a bass jump some distance away in a deep pocket near some gator diggings. My partner rowed me over there and, as soon as I got a popping bug where the bass had shown, he chomped it. We went on a little way with no strikes and I saw a very gentle bulge back in some bonnets. No strike, just a movement. We caught a bass there.

Then I saw something move against a shoreline where the water was very shallow. That one was hard to get to and we weren't back in there until 15 minutes later. My friend put a lure where we'd seen what we thought was a fish and it struck immediately. The account would be better if we had caught no other fish at all but one inconsiderate bass did strike a blind cast to ruin my story. Anyway, the conclusion is that all of the fish that moved were ready to strike and those that didn't show themselves were hardly worth fishing for. ☐

Bonefishing guide Bill Curtis in action. Boat and poling platform are usual Biscayne Bay equipment.

Photo by Charles Waterman

Hunter Education News

Range session

The final class of the Commission's Hunter Education program is the Range Session. After completing the classroom portions of the course, each student is required to shoot a rifle, shotgun and bow and arrow. This "hands-on" experience gives the students the opportunity to display their safe gun-handling abilities. In areas where safe range facilities are not available, or at schools where the class is restricted to campus, substitute firearms are utilized. In order to meet line firing requirements, precision air rifles and sightless airguns are used in place of .22 caliber rifles and shotguns.

In many instances, this may be a student's first shooting experience. Having been trained properly and with the right attitude toward safe and proper use of firearms, this is, for many, the most enjoyable part of the course.

The basics of marksmanship, including muzzle control, sight alignment, trigger squeeze and proper breathing techniques, are again covered while the student is actually shooting. Students are not required to shoot for score. Grouping the shots on the target is stressed. Hitting the bullseye is accomplished by shooting groups of shots and moving the sights to the point of impact. After understanding this procedure, the student is prepared to sight in his/her own gun.

With the shotgun, students usually shoot at stationary and moving targets. This helps them better understand the scatter gun and its use in field and clay target shooting sports.

Archery shooting is done with the thought of understanding the basics of the use of a bow and arrow. Stance, draw, aim, release and follow through are discussed with the student while actually using the equipment.

Although accurate shooting is stressed, the course does not try to make marksmen of the students. Usually a portion of the range class allows the student the opportunity to go on a simulated hunting trip, including crossing ditches, fences and other obstacles normally encountered in the woods. With the student carrying a firearm, the instructor observes and corrects the student, if needed, on proper firearm handling.

When the course is satisfactorily completed, each student is presented with a wallet card, or certificate suitable for framing, and a certified safe hunter patch. This certification is accepted in all 29 states where a hunter safety course is required and is good for life.

Participants in the program will ensure the future of sport hunting by better understanding their responsibilities to wildlife, to landowners, other hunters, non-hunters and perhaps most of all, themselves.

For information on the next class in your area, please contact the Hunter Education Officer at your nearest Game and Fresh Water Fish Commission regional office. —*Captain Ed Tyer* ☐

Bow and arrow instruction

Photos by William Greer

Watching the lives of other animals can help us draw comparisons with human behavior, says Dr. Glen Woolfendon, the expert on the Florida

SCRUB JAY

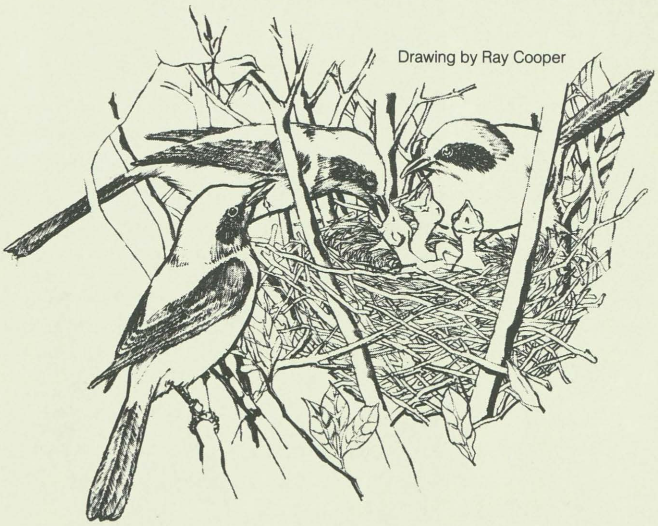
By Susan Lykes Mueller

Boy meets girl. They get themselves a piece of land and settle down to raise a family.

Daughters grow up, find mates and settle down, often far from home.

Sons stay around longer. They help the father provide for the mother and for younger brothers and sisters, help enlarge family land holdings and protect them from squatters and trespassers.

One day, the oldest son catches the eye of a neighbor girl. With her help and encouragement, he stakes a claim to his folks' back 40. Soon the young couple starts a family of its own. The girl urges her young man to assert his independence from his parents. She does not get along with her mate's mother.


Drawing by Ray Cooper

Sound familiar? The story, maybe. But the characters involved in this tale may surprise you. They're birds.

You have just read an account of the social behavior of the Florida scrub jay-one of our relatively few communal or group-breeding birds and also one of Florida's threatened species.

Dr. Glen Woolfenden, University of South Florida professor of biology, is considered the expert on the scrub jay. The 50-year-old ornithologist has spent the past 11 years watching, weighing, counting and even chirping to these birds.

The call—actually not a chirp but a sort of "shspushy" sound—draws birds to him in the field at census time.

That's once a month when Woolfenden packs binoculars and khakis and drives the 250-mile round trip from Tampa to the Archbold Biological Station in Highlands County.

With a good library and overnight accommodations as added attractions, this privately-endowed research facility offers naturalists 4,000 unspoiled acres of Florida scrub country for the study of a wide variety of the state's wildlife, from birds to bobcats.

Woolfenden is one of only four regular Archbold research associates. But any scientist can request permission to conduct research at the station, situated near the intersection of State Road 70 and U.S. Highway 27.

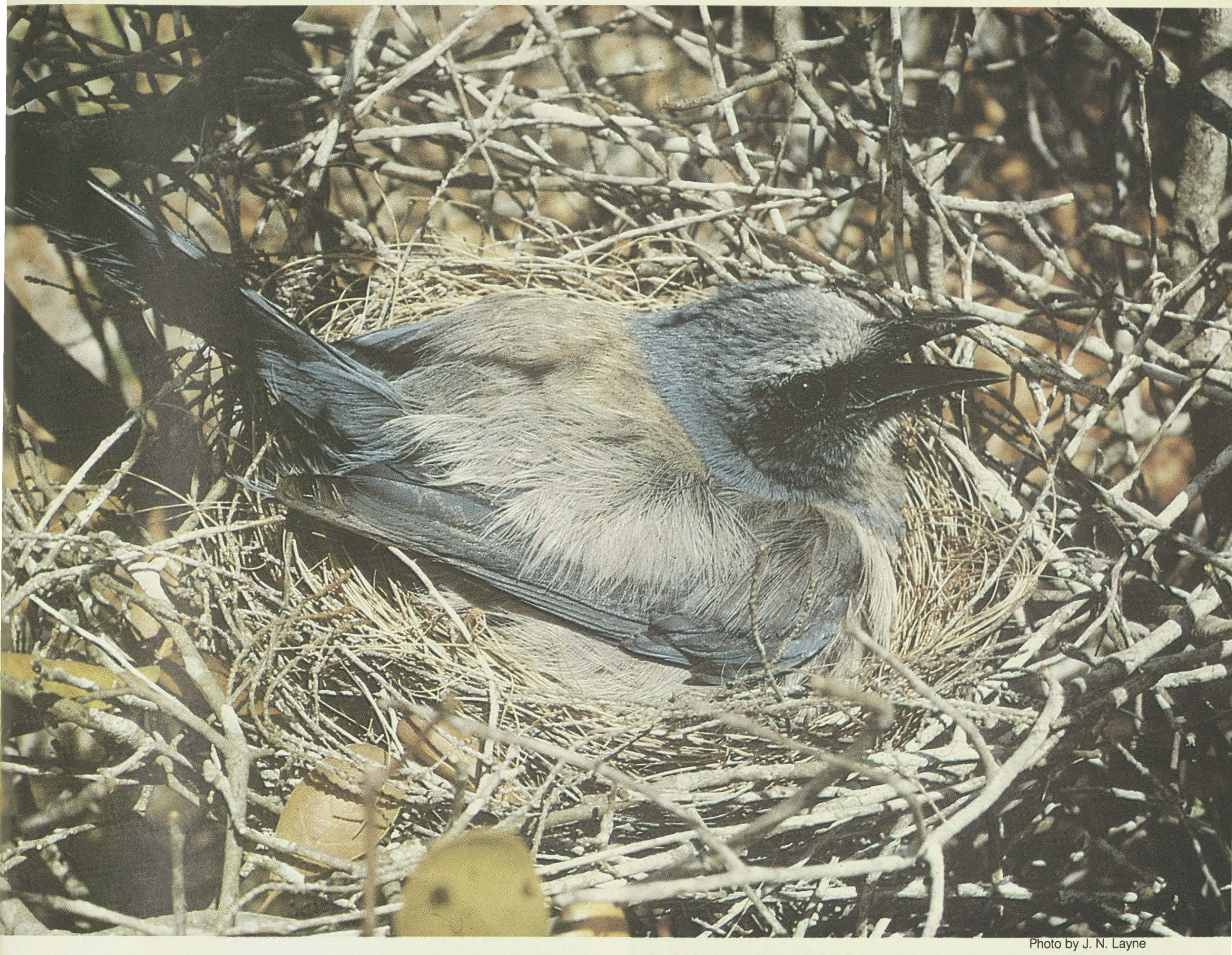


Photo by J. N. Layne

Scrub jay on nest composed, typically, of coarse twigs with inner layer of finer material.

Woolfenden was doing bird populations studies at Archbold in 1969, when he noticed that nesting pairs of scrub jay had non-breeding jays helping them at the nest. At that time, little was known about the species' phenomenon of communal breeding. The USF biologist had stumbled on to what will likely turn out to be a life's work.

Watching the lives of other animals can help us draw comparisons with human behavior, Woolfenden says.

In studying some 30 Florida scrub jay families, he has learned that these birds are monogamous. Couples stay in one well-defined territory (about 25 acres). They defend it from intruders, including other jays that might want to feed or settle there.

Offspring stay in the same territory with their parents for at least a year, some for as many as five years. These offspring do not mate during this time, but function as helpers to the breeding pair—bringing food to the nest for the incubating female or her recently hatched young, defending the territory from intruders, warning of the approach of predators.

As the family grows, so does its territory. Females depart in search of males with a territory but no mate. Males remain on the family turf longer and may eventually inherit a part of it. At that time, they take a mate and become breeders.

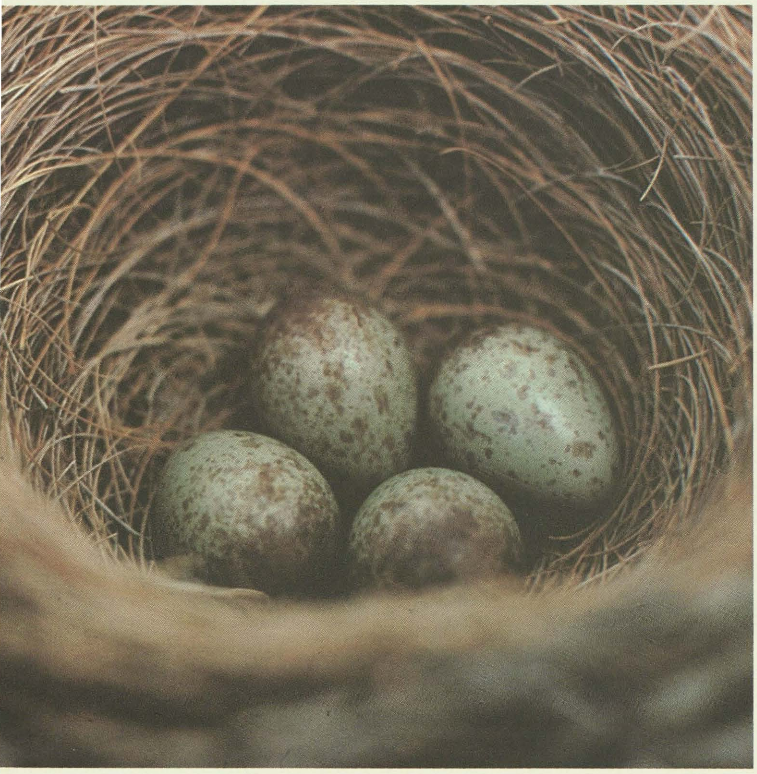
"That's just agrarian U.S.A.," said Woolfenden. "It's middle America in the 19th Century."

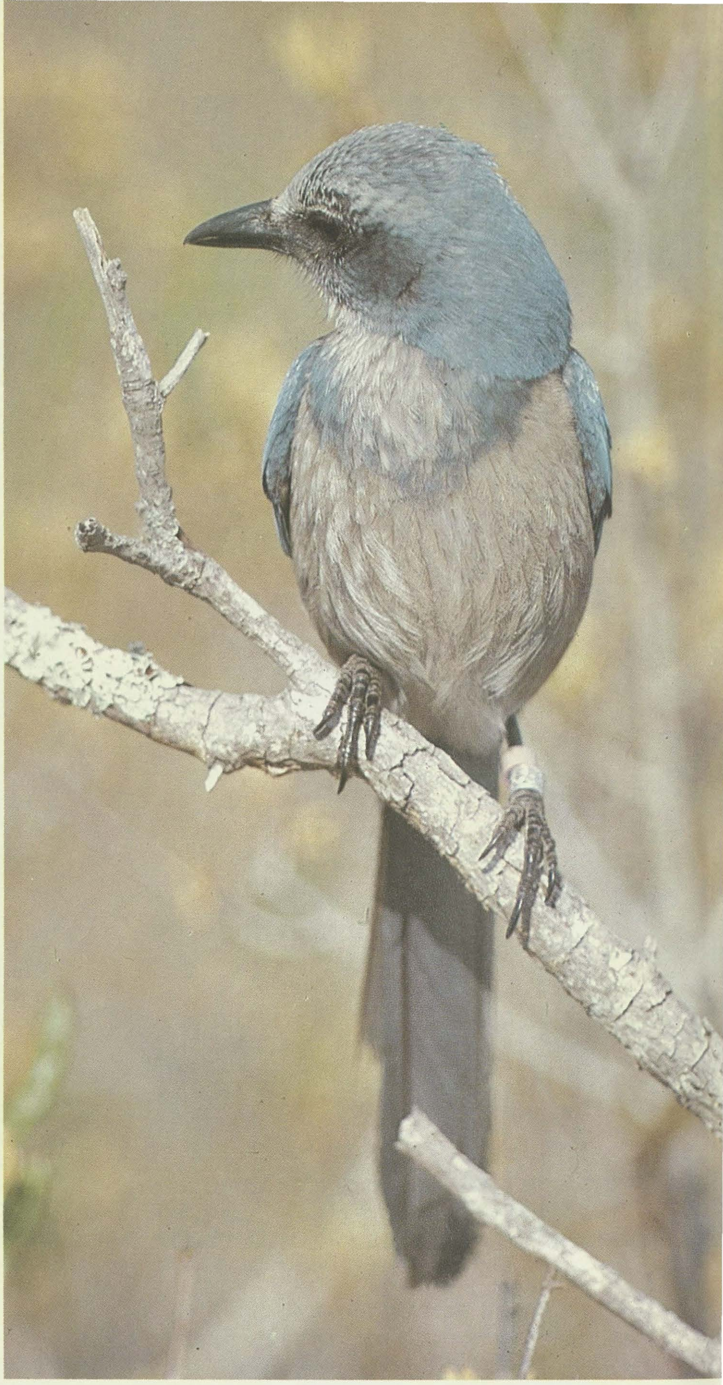
Thanks to the facilities at Archbold, and the natural tameability of the Florida scrub jay, Woolfenden needn't spend days crouched in a blind to do his research.

"I hike through my tract, find my birds, and record where they are, who they're with and what they're doing. Basically, they're at home with their mates." Woolfenden said, describing typical censuses from August through February.

Spring is a different story. For in spring, the jays

Three to five eggs, greenish with irregular blotches of reddish brown, is usual. Jays on study area are banded for sight identification. Note double band on bird at right. With mouths agape, young scrub jays, opposite page, wait for handout. Nestling, feathering out well and already banded is held for photo at far right.





are nesting. Woolfenden spends all his spare time at Archbold during this season. His research demands that he locate each nest on his 1¼ square mile study tract and mark every new jay that hatches. One year, he even measured and examined each baby bird daily for a report on growth and survival of young jays.

Colored bands are used to mark the birds so that they can be identified throughout their lives. Each jay wears a unique combination of colored bands and is also given an individual identification code.

Thus, Woolfenden can tell you where a particular jay was hatched, where it has lived, point out its relatives, and keep track of offspring. He can tell you what Florida scrub jays eat, how much and how often. And he knows just which vocalizations will cause these birds to fly to the ground and look up and which will result in them hopping up and looking down.

A familiar figure at Archbold, Woolfenden has jays literally eating out of his hand. And he knows their favorite "junk food." It's peanuts.

Easily tamed, they'll take peanuts from just about any human hands in a situation where they are not molested. Their protected status at Archbold makes the situation ideal. After 11 years of watching by Woolfenden and his co-workers, including John W. Fitzpatrick, curator of birds at Chicago's Field Museum of Natural History, scrub jays at Archbold know they have nothing to fear from humans, and maybe a few peanuts to gain.

The phenomenon of communal breeding—a relatively rare one—makes Woolfenden's work interesting to the scientific community at large. After

SCRUB JAY

hearing Woolfenden speak at Harvard in 1974, Edward O. Wilson included information about the scrub jay in his book, *"Sociobiology,"* published by the Harvard Press in 1975.

The jays had the distinction of serving as a "centerfold" for Wilson's book. Woolfenden collaborated with artist Sarah Landry to render an illustration of scrub jays at the nest for *"Sociobiology."*

The whole topic of sociobiology has been a controversial one since Wilson introduced it, because it involves the old question of what determines social behavior—heredity or environment? Sociobiologists say we cannot ignore the possibility that genetic factors play a role in social behavior.

Woolfenden is a ornithologist, not a sociologist. He describes himself as a biology teacher with an obligation to contribute new knowledge to his field, ornithology, instead of being satisfied with lecturing students about other men's discoveries.

But he does not discount the applicability of his work to sociobiology. "It is logical to use information from animals other than man to learn something about man," he said. And Woolfenden says he has observed things in the world of the Florida scrub jay which lead him to conclude that there may be genetic reasons for behavior such as the jays' strong incest taboo. Members of the same functional family never mate.

Particular in their choice of mate, scrub jays are picky about where they live. They're found only in oak scrub—areas of sandy soil that support palmettos, a few scattered pines, a great many small, twisted oaks that are more like shrubs than trees.

Geological studies indicate that at one time oak scrub covered most of the southern United States and Mexico. But patches of scrub are few and far between in Florida today. And the Florida scrub jay faces extinction.

Through Woolfenden's efforts the Florida scrub jay has been included in "Rare and Endangered Biota of Florida, Vol. II." It's one in a series of books reporting Florida's endangered plants and animals and recommending steps that can be taken to protect them.

A map in the book indicates only two sizeable patches of scrub in the state. One is in Highlands County, another overlaps Marion and Lake counties. There are also smaller strands of scrub country running along the Atlantic Coast, including some that overlap Martin, Palm Beach and Broward counties.

The growth of cities as well as the spread of suburbs, citrus groves, and grazing land threatens the survival of the scrub and the jays who will live only there, Woolfenden said. He has recommended that sanctuaries be established in the scrub that's left.

Woolfenden's study has been supported by Archbold Station and by USF with little outside funding until he received a $10,000 National Geographic grant last year.

Woolfenden plans to continue his study indefinitely, gathering enough information to report on the jay's complete life cycle. That means he needs information about life expectancy and the effects of old age. The oldest known birds in Woolfenden's study are now 13 years old. He expects they may live up to 20 years. □

A story of one man's introduction to the joy of observing nature in a place where alligators are . . . .

The NIGHT WATCHMEN

By BRUCE SHUGART

It's a late afternoon in October as I stand on a narrow boardwalk, surrounded by hundreds of alligators and thousands of birds. I am entranced by the spectacle of nature unfolding before my eyes and through my camera lens. As the sun sets and the noise of the birds increases, my mind travels back to the summer of 1972 and to the events that brought me to this day.

For it was in 1972, my story begins . . . I was employed with a building contractor who was selected to construct a nature trail and boardwalk in the back of the St. Augustine Alligator Farm.

For generations my family had been in woodwork. I was young, strong and proud of my heritage and abilities, and it was this pride and ambition that drove me toward perfection. Little did I know, then, that I was so close to another form of perfection that dates back to the beginning of time itself.

Thus armed with the strength of youth and the aid of power tools and gas chain saws, we began the task of cutting and shaping the heavy landscape surrounding the swamp which we were to cross with a wooden boardwalk.

Day after day, we cut and cleared. Finally, we began to build. We used a combination of pressure treated lumber and 2 × 4" treated post for railings. As the boards were cut and nailed, the boardwalk began to take shape, snaking slowly from dry land out into the swamp. I would sometimes find myself asking questions about the wildlife around me. Until this time, my only contacts with real wildlife had been brief encounters that most young boys have through their Boy Scout camps. As the weeks and months passed slowly and the nature trail took shape, I sometimes regretted the cutting and chopping we did; but, I knew that the beauty would be shared by many people.

Then, as suddenly as it had all begun, it was over. The nature trail was complete, and what a beauty it was! But, there was something missing — wildlife. During the construction, there were some visitors from nature but permanent residents were few. So, it was decided to stock the swamp with alligators, turtles and a few catfish.

What a great thrill it was for me! Until that time, I had only watched the men at the farm handle the

Photos by Bruce Shugart

Snowy egret in full breeding plumage, opposite page. Note the identifying dark bill and the dark legs with contrasting yellow feet. One of the night watchmen, left, rests on the bank while hatchling gator, above, takes a look at the world.

alligators. Many days on my lunch hour, I would watch Chris Lightburn, a veteran alligator man, perform for the visitors at the farm. I wondered what kind of magic he possessed over the gators. Now it was time to find out. In all, we moved about 250 alligators from their old cement and sand homes to their new home, The Alligator Swamp. It would be months later before I would stop dreaming about alligators. But from that day on, I knew I would not be happy doing any other kind of work.

We had completed our job and now it was time to move on, back to building houses and cabinets. One of the men on the crew, Sam, stayed on at the alligator farm as a groundskeeper. Each morning as we would start work, my thoughts drifted to Sam and how lucky he was to work at the farm. It would be almost a year before I finally joined my old friend and started working there.

When my employment began, I was burning with a desire to learn all there was to know, but the one section that still held my dearest affection was the nature trail and boardwalk. Then, as now, I would make daily trips along the boardwalk. Even today, as I look out over the swamp, my mind goes back to the first mating season of the alligators in their new swamp home.

I remember the strange sounds of the alligator love calls. Then I saw a male and female gator rub noses almost tenderly, and I thought it so strange

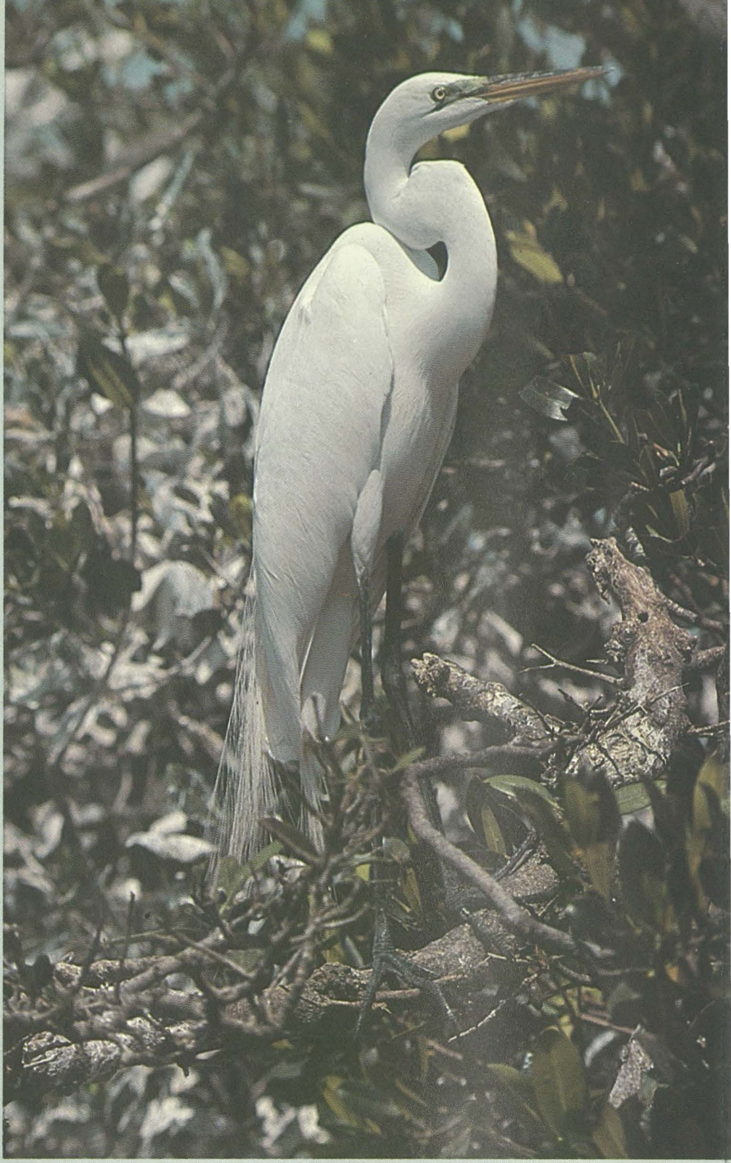


Photo by Lynn Stone

Photo by Bruce Shugart

Common egret, above, is frequently encountered along the nature trail. A pair of immature tricolored herons, well-feathered but still showing down on head, right, and wood storks, opposite page, find area to their liking.

that such a massive, powerful animal could show affection. As I watched the pair, one of them sank below the water only to be seen blowing bubbles under the other's chin. Slowly they swam through the swamp as if to seek a little privacy. A short time later, the female could be seen busily scratching the surface of the earth to build a nest of mud, sticks, grass and leaves. Later, in early September of 1973, the first baby alligators were born in their new home. To this day, the nature trail area continues to be the breeding grounds for the alligator farm.

During the early days of the trail, on my daily walks I would look to see what new things nature had to show me. But it was almost a year before something new was seen. The maintenance department began to complain that, almost daily, they had to wash and scrub a small section of boardwalk beneath a large oak tree. It seemed that several pair of ibis and egrets were roosting in the oak tree. To confirm this, we would slip quietly down the boardwalk at night to investigate.

Photo by Bruce Shugart

Almost nightly the visiting population of birds grew. There were ibis, herons, egrets and many others. At first, we didn't understand what nature was trying to tell us. We tried all types of tactics to scare the birds away; but no matter how hard we tried, we only failed and their numbers increased. It was like an invasion! Little did we know that the birds' natural desire to roost in a safe place was stronger than our desire to move them. With the protection of several hundred alligators as night watchmen, the birds soon began to use our area not only as a nightly roost but also as a nesting ground.

At first, the ibis and egrets built nests 20 to 30 yards from the boardwalk, within the protection of the trees and the alligator swamp. Then the herons built their nests as close as five to six feet from the walks. I remember the thrill of discovering the herons' nest so close to the walkways. Every day we would check the nest and soon discovered the eggs. Later, on an early morning check of the farm, I heard the cries of the newly hatched herons. I think I was as proud that day as I was the day my own son was born. How ugly they were and yet how beautiful.

As the days turned to weeks, the birds grew. I found myself concerned for their safety. I would watch them stand alone in their small nest, while their parents were away hunting for the food essential to their growth. As they awkwardly walked in the nest perched just a few feet above the swamp, the alligators would gather below waiting. I would think, "Those animals have served the birds well. The have waited and watched all those long, lonely nights, protecting the birds and their young from predators . . . Now they wait for their reward."

Then one day, the inevitable happened. A hungry heron impatiently waiting for the return of his mother, paced back and forth in the crowded nest. As the hungry bird paced faster and faster and faster, his brothers and sisters began stirring. Then, the hungry bird saw his mother flying above the tree tops. He began to hop and jump. The alligators waited below as the mother flew closer and the little bird became more frantic. He had to be the first in line. As the mother stretched out her legs to land, the little fellow leaped. In his panic to get the food, he threw himself from the nest. He tumbled through the palmetto bush and, in an instant, he was grabbed in the waiting jaws of an alligator.

As I watched this tragedy unfold, almost appearing to happen in slow motion, my mind recorded the expression of the mother heron. She watched her baby tumble into the waiting mouth of an alligator. Hers was a momentary shudder and a lost look in her eyes, then she turned and began the task of feeding the survivors. The brother and sister seemed not to notice—all they knew was their hunger was being satisfied for the time being.

My mind is racing now. Here I stand on the boardwalk with my camera mounted on a tripod. A new-found hobby, I try to capture on film some of nature's wonders.

I am alone at dusk with thousands of nature's creatures around me. It's as if time is standing still. Yet just a few hundred feet away, cars are busy rushing their passengers home for the night, home to their families, home to the protection of man-made comforts and conveniences. Yet here, on the boardwalk, I am alone with nature.

The shutter clicks, and I swing the camera to the skyline. The evening's performance is under way. The graceful egrets are performing a ballet in the sky, as they circle once or twice and then flutter softly to the tree tops. The ibis glide through their flight pattern as if led in by some remote traffic control system, only to land awkwardly in the trees. Then, as if not satisfied, they dive and soar across the swamp to another tree where they might be more comfortable.

During the day, we have yet another visitor, the wood ibis or wood stork. The first sightings of these birds excited us greatly, for we know they are slowly decreasing in number. They came without fanfare. One day they were just there, about 40 of them. How sad and weary they look, as if they have the weight of the world on their wings; and perhaps they do. As I study them through my camera lens, they seem to sense the end is near. I only hope that areas such as ours benefit them to some degree and that through some miracle they can be saved.

Night has engulfed me now. The moon has started to shed light through the trees, as I put away my camera and tripod. The sounds of the bird rookery fill my head. The herons and egrets have settled in and are trying to rest, while the ibis continue to squawk and chatter through the night.

Slowly I make my way back down the boardwalk. Another day is done. I know that the birds are safe here, for they have the night watchmen to protect them. As I pull into my driveway and stop my truck, I look toward the sky. Flying above me is a lone egret heading toward the alligator farm. My boy and girl open the front door and look in the direction I am looking. I point my finger toward the egret and say to my children,

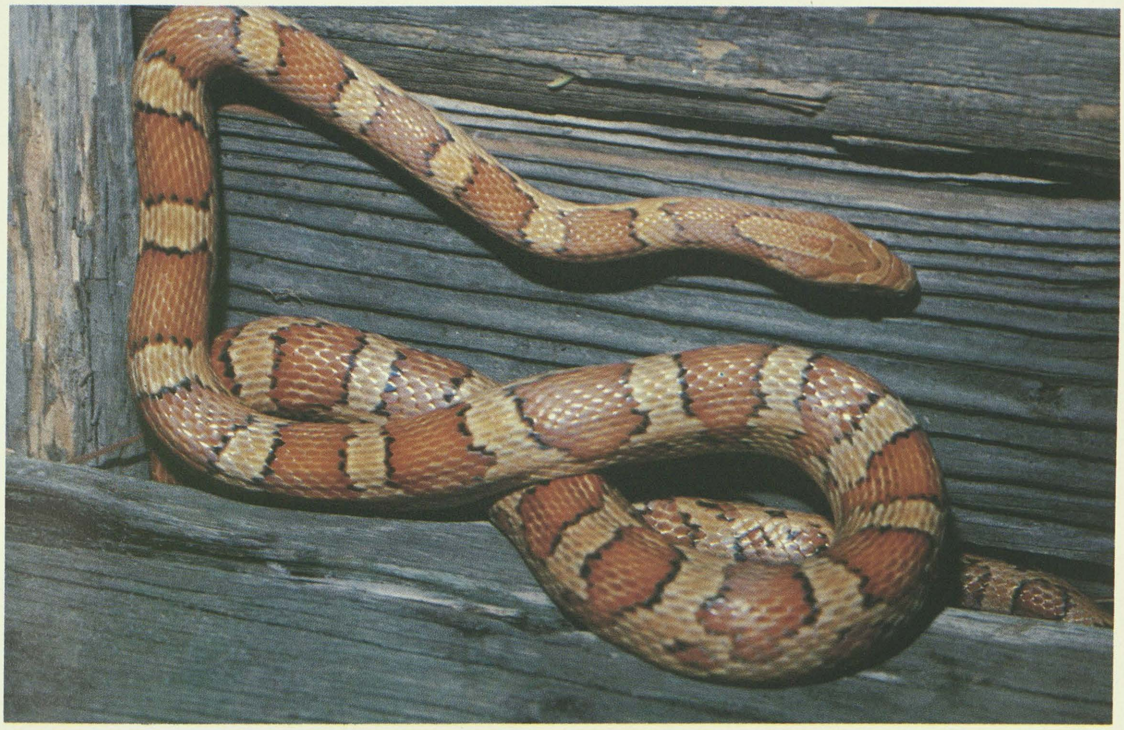
"There in the sky flies your tomorrow . . .
If you take care of nature today,
Nature will take care of you tomorrow." ☐

End of the day finds wading birds coming in to roost, guarded by a corps of no-nonsense night watchmen.

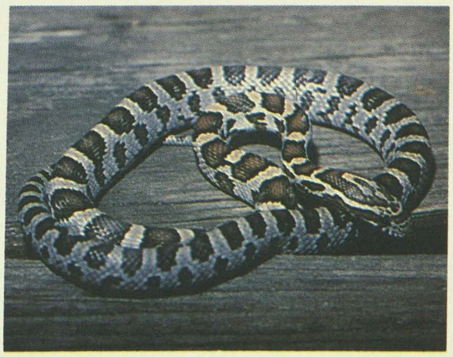
Photo by Bruce Shugart

A Coat of Many Colors

Text and Photographs by Bernard Bechtel



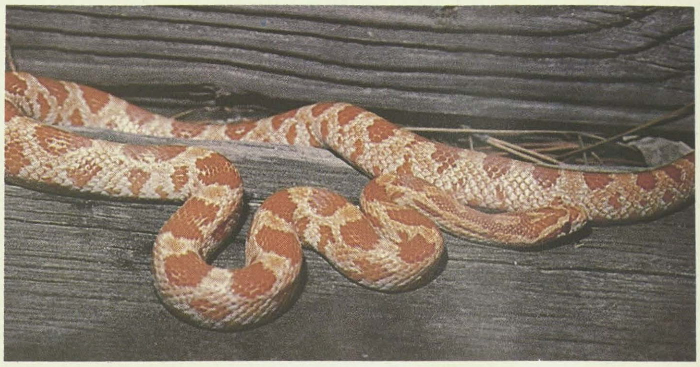
(top) Normal pattern, (below) Aberrant-very little red



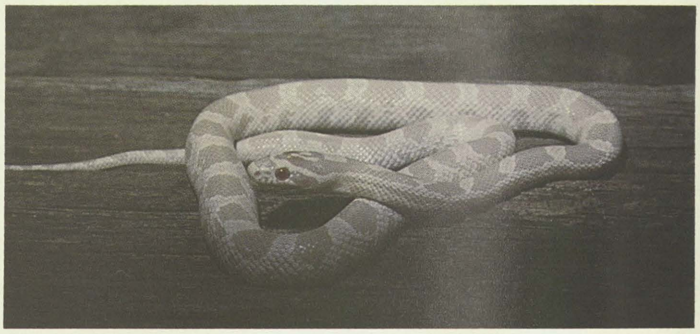
It thrives in the midst of man and his activities so you don't need to be an out·of·doors type to get to know the corn snake.

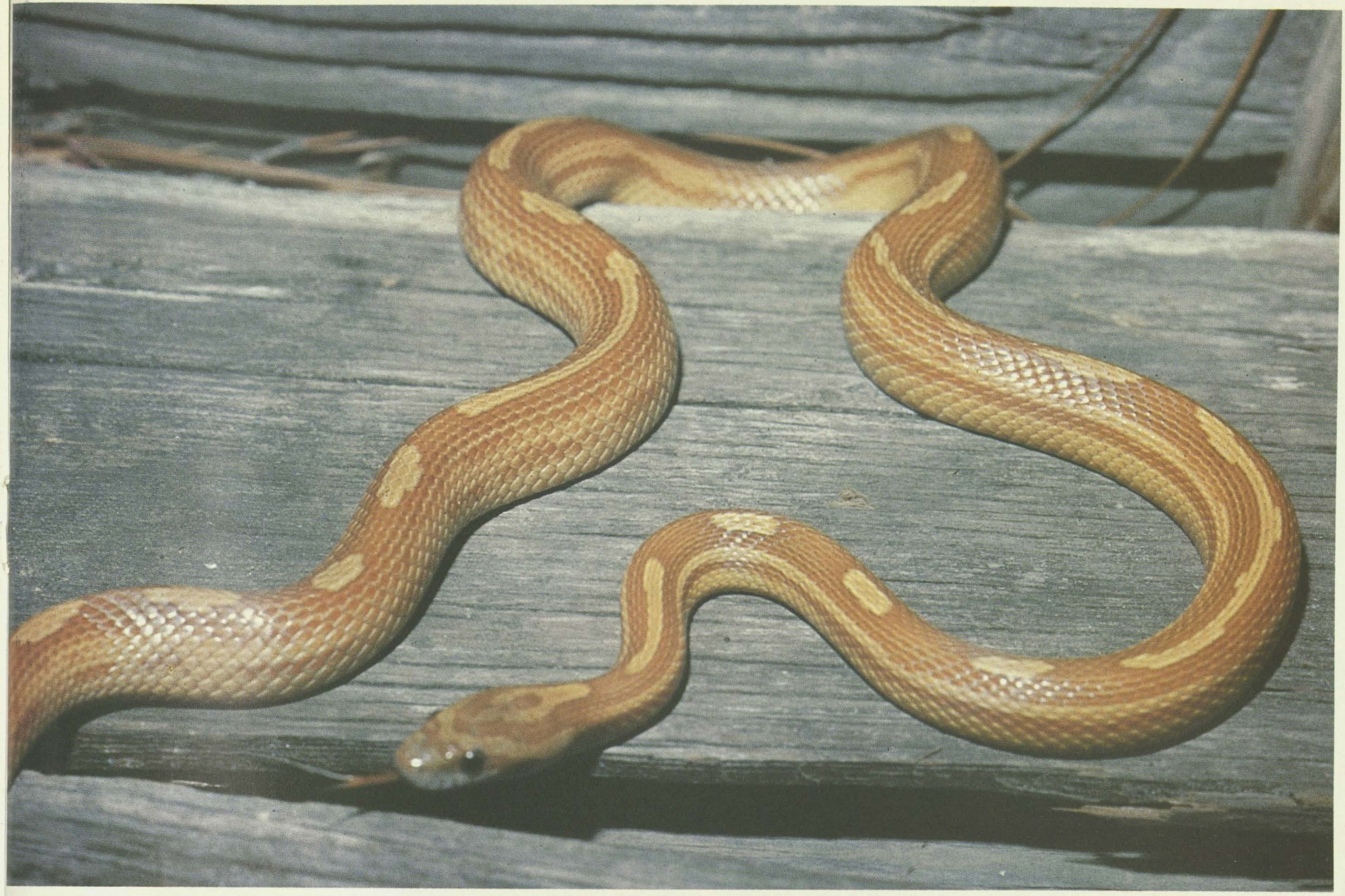
The range of the corn snake extends from Maryland and southern New Jersey through the entire Southeast into southern Louisiana. They are most abundant in the coastal plain, but the range does extend northwest into Tennessee, with colonies in Kentucky. Of the states in its range, Florida has more suitable habitat and more corn snakes. Suitable habitat may be almost anywhere—Everglades, flat pinewoods, hardwood forests, sandy ridges and mangrove swamps. Recently abandoned farms and other dwellings, overrun with mice and rats and littered with boards, are great places to

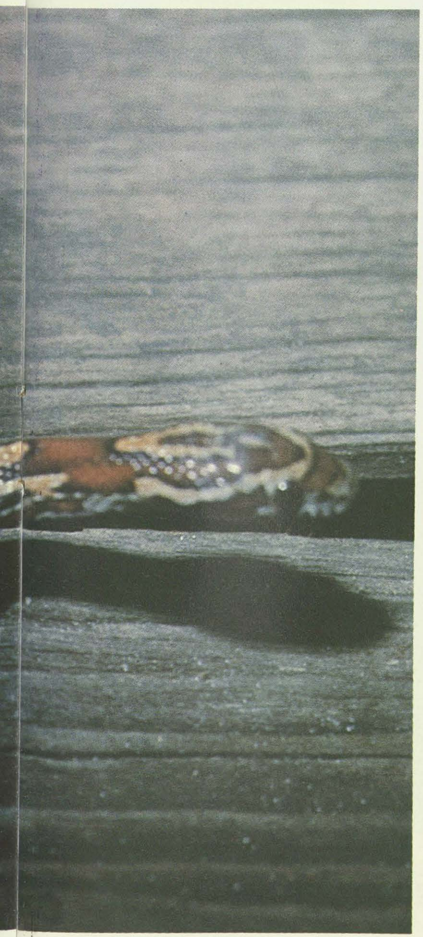
A Coat of Many Colors



look for them. They even persist in quite sizable towns and the suburbs of the largest cities, and turn up frequently in unexpected places: lawns and patios, under mulch, in the woodpile, in carports, and occasionally in homes. With their distinctive colors and pattern, they are easy to identify. The background color of the typical corn snake is red, orange, tan, gray, or a blend of these colors. The dorsal pattern consists of a row of about 35 orange or red blotches, each blotch having a distinct black border. On each side of the snake is a row of similar but smaller blotches alternating with the dorsal blotches. Lower, where the scales meet the ventral plates, is another row of blotches, alternating with the ones immediately above. Other Florida snakes patterned with dorsal blotches could result in some confusion, but the corn snake has





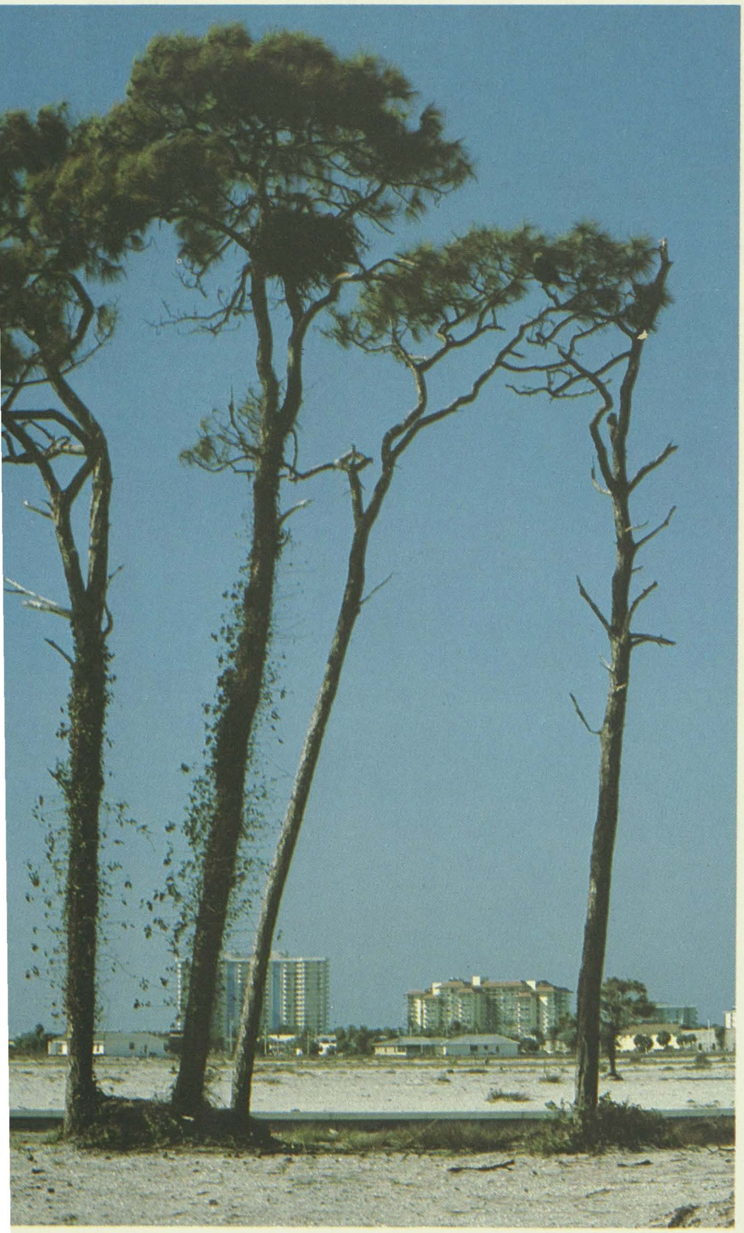


Opposite page, mutant corn snakes, top to bottom—anerythristic partial albino; melanistic partial albino; genetic absence of red, black and most of yellow; and individual with an aberrant dorsal pattern. Above shows a mutant recessive gene pattern.

very distinctive markings on the head and the undersurface. The first blotch on the neck extends forward over the top of the head as two prongs which meet in a "spear-point" between the eyes. The undersurface is white with bold black squares and rectangles. Anyone who is willing to stop and look at one of these attractive snakes should be able to identify it, in spite of the tremendous variation in colors and pattern. An occasional snake will be so rich in red that the dorsal blotches are nearly suffused with pink. Others tend to yellow. Variations in the shape and irregularity of the blotches, the width of the black around them, and the amount of black on the under surface are countless. Although most will conform to the general description, no two snakes are ever identical. A mutation of color or pattern results in a snake so different in appearance that it no longer fits the general description of the species. These mutations are uncommon, and most people will never find one in the field. However they frequently are displayed as attractive curiosities. Florida's produced quite a few of these mutations. □

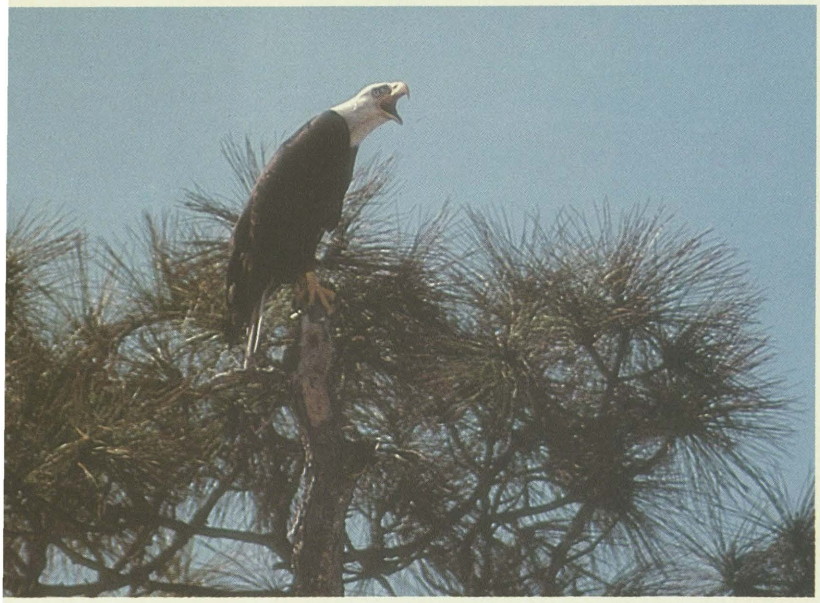
BALD EAGLE

A short block from a busy intersection and shopping center on the lower Gulf coast's Marco Island, bald eagles go about their nesting chores. Far from the ideal habitat, the lure of an historical nesting site is stronger than the distraction and dangers of encroaching development.



A series of photographs

# of our national emblem by ELIZABETH T. ADLER



Bald Eagle

Once a wild and beautiful region, development has driven away or destroyed much of the wildlife of Marco. For now, at least, the eagles have been able to cope with the encroachment. For how long remains the question. □

DEER POINT

....Lake Of Surprises

J.S. Birge was peacefully bream fishing with his grandson on Deer Point Lake near Panama City.

When he saw a big fish strike nearby, he tied a topwater broken back Rebel onto a spare rod, and flipped the lure towards the roll.

Just then his bream bobber went down. He let the surface lure float, while he landed a scrappy bream. As he did so, bang!

A huge fish hit the floating lure, and the battle began. When the fracas was over, Birge had a 10-pound, 4 ounce bass to his credit.

Surprising? Yes, and no. Deer Point Lake is full of surprises with the largemouth bass doing things that often startle anglers.

Buck Bray and I were fishing the impoundment one night with Austin Tharp and Chuck Hall not far from Camp Cedar on the northwest part of the lake.

Buck's a professional guide on the Withlacoochee River near Dunnellon. He's hardly an inexperienced fisherman and certainly not one to be startled by the antics of any bass. But one of the Deer Pointers shook him up a bit!

Action had been slow with top waters. Deciding to change lures, he tied a huge, six-inch Devils Horse—actually a saltwater lure—onto his 15-pound test line, and flipped it near a stickup.

Wham! The plug was engulfed by an eager bass as the lure landed. A quick dash around the stickup, and Buck reeled in a broken line. The fish easily would have weighed 10 pounds or more. Professional or not, Buck was startled by the encounter.

There's little doubt that Deer Point harbors big bass. Chuck Hall, who guides on the lake, has had numerous parties land trophy fish, sometimes under surprising circumstances, such as the time Bob Owens landed a seven-pound, and a nine-pound bass on successive casts with a Rebel. Surprisingly, or perhaps not so for Deer Point, the two bigmouths were caught at 3 p.m. on a June afternoon.

However, Hall's parties' catches have been short of the lake record of 16 pounds, two ounces. It's no wonder that many Deer Point veteran anglers believe the lake might harbor a world's record bass.

Such a fish could be in the lake, for Deer Point is in the southern big bass belt. Undoubtedly conditions will have to be perfect for a lunker to reach the world record range, but Deer Point does have unusually favorable conditions.

Obviously, any water producing a world-record bass will have to be free of pollution. Deer Point is because the impoundment is a 5,860-acre water reservoir serving Lynn Haven and Panama City.

Also the probable world record bass hole will have to have an ample water supply. Deer Point has

By Max Hunn

DEER POINT LAKE ▶
Photo by Kit and Max Hunn

Deer Point Lake

such from Bear, Cedar and Econfina creeks.

Deer Point was formed by a dam across the upper end of North Bay into which the freshwater creeks emptied. After the brackish water turned to fresh, all fish life was poisoned, and the lake re-stocked. Deer Point was opened to the public in 1964 and has been a steady bass producer, despite its gin clear water and increasing grass problem.

Unlike many impoundments, the lake was not cleared of trees. There's abundant fish cover ranging from tall cypress and underwater snags to shallow, grass flats. Also there are deep holes, 18 to 30 feet, in the old, creek channels.

It's also a lake not requiring big motors, although big bass boats have no problems. Many local anglers use 6 and 9.8 horsepower motors.

What is always intriguing about fishing Deer Point is the success with topwater lures at various times of the year. For example, Chuck Hall landed a 10 and three-quarter pound largemouth on a balsa-type gold and black lure at high noon one May. This fish was better than a pound heavier than the one he landed with a balsa topwater in April.

He's not the only fisherman who's scored with topwater lures regardless of the calendar. It's surprising how many big fish have been landed with shallow-running lipped plugs.

Undoubtedly, the most unusual period was early in 1976 when big bass couldn't resist hitting shallow running lures. In January, a 13½ pounder, a 13 and one-quarter, and a 14-pound bass were landed. In April, a 10 and a half-pounder was caught with a balsa top water.

Deer Point often produces spectacular fishing in March, generally a cold month in the Florida Panhandle. Bill Price of Panama City proved this when he landed a pair of lunkers on a big gold and black shallow runner Rebel. One fish weighed seven pounds, two ounces, the other nine pounds, three ounces.

However, this doesn't mean you can't catch big fish with plastic worms. You can. Generally, the worm is most effective during the warm months.

Another Deer Point surprise is the importance of gold coloring on lures. While most anglers prefer black and silver for shallow runners, particularly in clear water, it's not the number one scheme on Deer Point.

Here, 90 percent of the time gold rates number one regardless of water color. Hall has seen this repeatedly and Austin Tharp agrees. Deer Point bass do seem to prefer gold in their teeth.

Studying Tharp's Camp Cedar records, it's apparent that the fishing is best during the cooler months—November through March. There's a reason. This is the period when the grass dies back.

Like many Florida lakes, Deer Point has an aquatic weed problem, but the cold weather kills back the plants. As a result, during the cool months, you find the fish in the lily pads, around stickups in water from three to six feet deep.

According to Tharp and Hall, the prime time is the last two weeks in March. Panhandle weather is unstable, and cold fronts often zip through, but when the weather is stable, look out!

In late March and April, a change in fishing tactics is called for. Now top water lures fished in shallow water around fallen and standing dead trees, old logs, and other debris will produce.

It's yet another ball game from May through September. Then plastic worms are the chief lures and they're best fished in deep water. Top water lures produce early and late in the day and at night during this period.

Hall prefers to fish Deer Point at night during the summer months to avoid the heat, and to catch bigger fish. He's guided night parties to eight-pounders. Favored lures are black Jitterburgs and Nip-A-Diddees.

Fish locations change from time to time. During the heat, most bass are found in Econfina and Bear Creeks near their entrances into the lake.

In October, with the grass and weeds at maximum height, you have to fish top water lures over the grass beds growing in eight to ten feet of water. You have to tease the bass into hitting. The grass is only inches below the surface.

November and December fishing are similar to October's, success depending upon the type of winter in the Panhandle. The fishing can be great, or it can be mediocre.

Deer Point also is known for its panfish. It was stocked with shellcrackers, bluegills, both channel,

Chuck Hall shows off a 4-pound bass that hit a topwater lure. Deer Point Lake has produced many bass in the 10- to 14-pound range. Shellcracker and speckled perch offer equally good fishing.

and blue catfish, and bass. There was already a basic stock of crappie in the creeks.

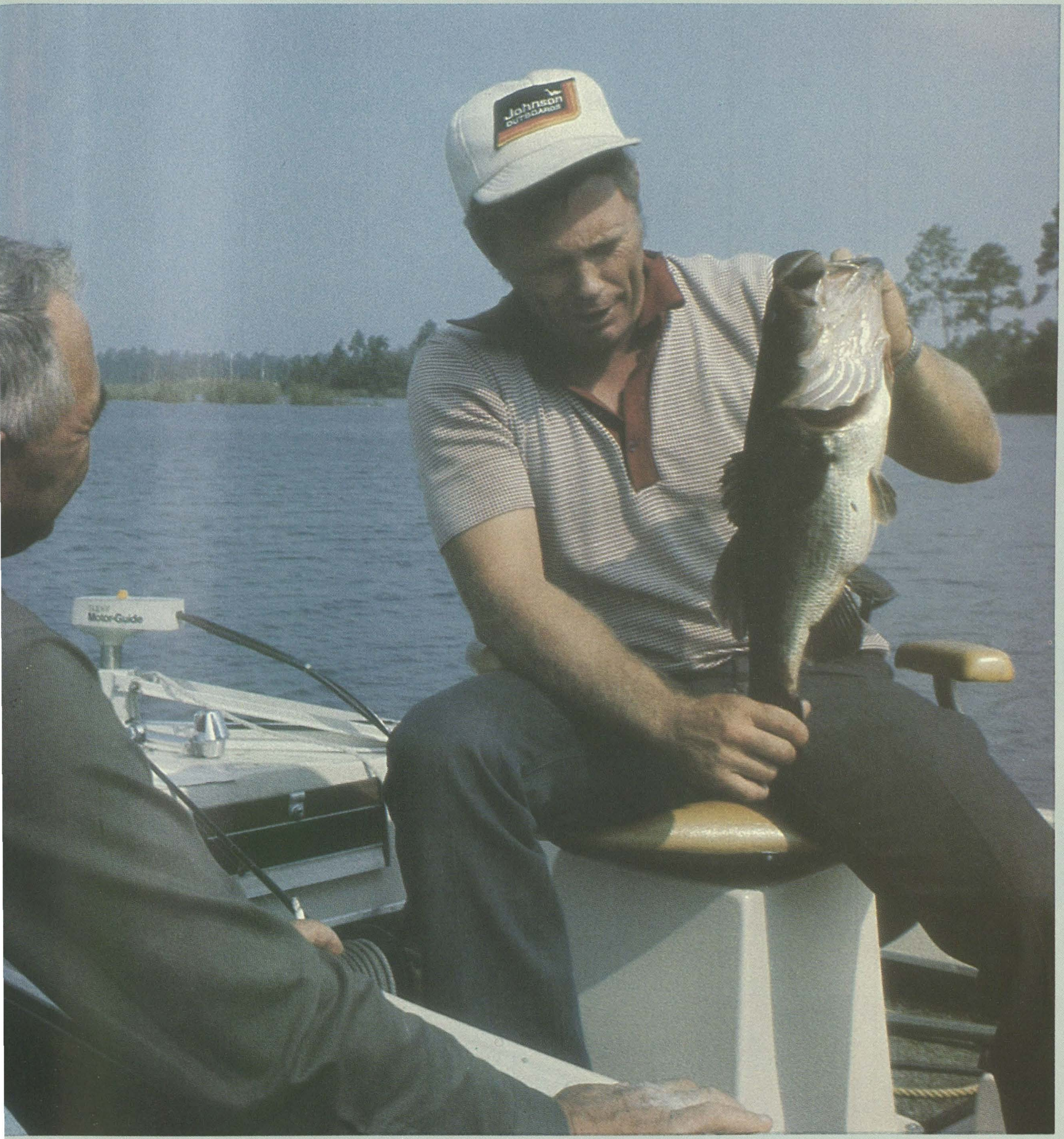
The shellcrackers have multiplied and grown. When they're bedding, the fishing is fabulous. The biggest shellcracker weighed at Camp Cedar is a three and one-quarter pounder. Crappie (speckled perch), average three-quarter of a pound. The best reported so far weighed two pounds, four ounces.

There is excellent bream fishing. The six days before the full moon in April, May, and June are the prime fishing times for shellcrackers and bream.

Located only 20 miles from Panama City Beach, Deer Point offers the advantages of being near a tourist-oriented community. Many fishermen are utilizing beach motels, enabling Dad to fish while Mom and the kids lounge on the white sand beaches.

If you're looking for a surprising lake, schedule a trip to Deer Point. This body of water can provide lunker bass, often on topwater lures, if you can't put 'em in the boat. If not, you have some real fish tales to tell around the hot stove league. ☐

Photo by Kit and Max Hunn



Lynn Hannon's BIRDS

By W. Horace Carter

Sculpturing life-like birds from wood is a twelve hours a day, seven days a week occupation for this talented Florida artist.

Inspiration, dedication, patience, and highly disciplined use of energy and time spells near perfection in wildfowl wood sculpturing for a petite 30 year old lady of Odessa, Florida, who ranks among the best in the world. She is Lynn Hannon whose artistry in three dimensions makes every creation come alive. The true life appearance of her birds is such that admirers half expect the subjects to fly away. Such realism of wildlife in action is this young artist's trademark.

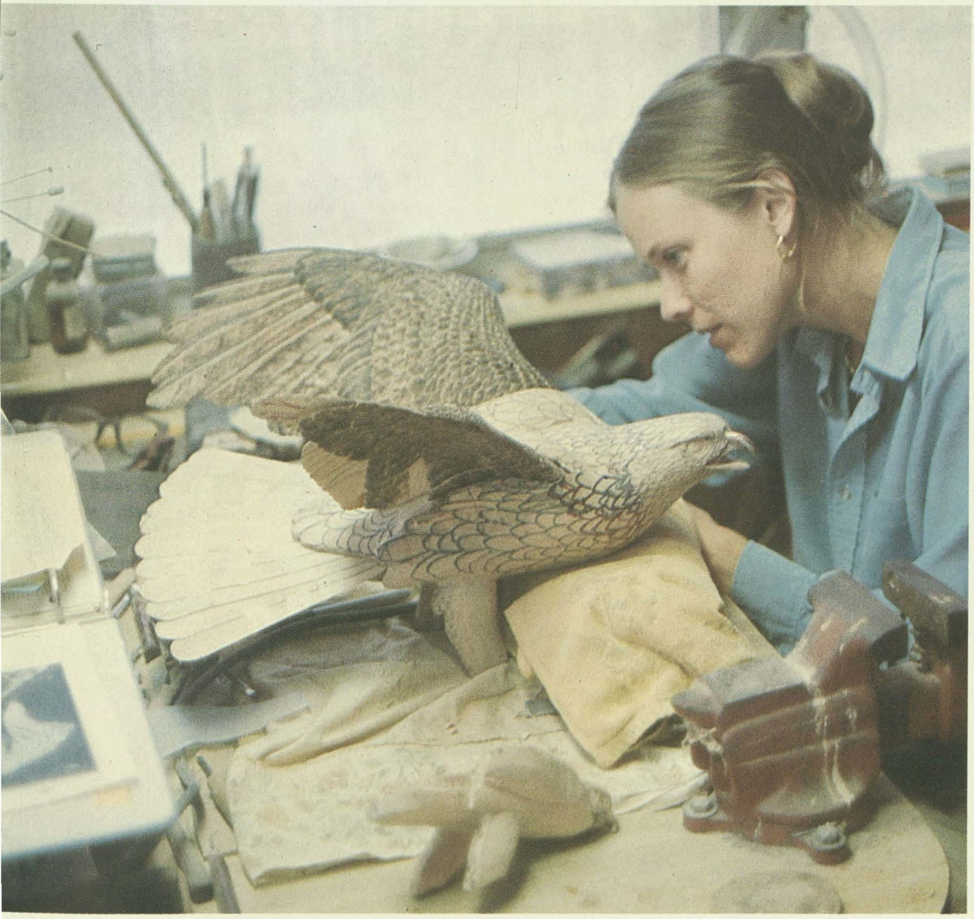
A favorite Hannon sculpture features, life sized, a pair of kestrels attacking a red-shouldered hawk. The feeling of hostility on the part of the smaller hawks and the defensive attitude of the red-shoulder come through so clearly it's almost as if witnessing such an incident in the wild. There is a reason for the perfection shown by the ruffled feathers and sparkling eyes of the combatants. Lynn worked 12 hours a day, seven days a week for more than a year to complete the work.

She works with that same enthusiasm, effort and dedication on every bird she sculpts and it sets her apart among the great artists of her time.

After she had worked diligently for more than 1,000 hours on a kestrel clutching a warbler in its talons, it appeared so lifelike that observers felt an impulse to reach out to catch the tiny feathers that seemed to be falling from the victim's breast. No taxidermist's habitat group nor even a photograph shows more accuracy and more detail than the work of this fine sculptress.

Today from her home, near Tampa, on Keystone

Photos by Douglas Hannon



Lynn Hannon at her work bench. This artist in wood ranks with the best.

LYNN HANNON'S BIRDS

Lake, Lynn labors away on America's emblem bird—the great bald eagle. It will have a 72-inch wingspread when she pronounces it complete many months from now. In the meantime, she will slave over basswood, a little metal, a little glass, hundreds of diagrams, charts, and sketches, until a perfect reproduction of this endangered species is ready to "fly." Then there will be a buyer who wants the work badly enough to pay a high five figure price for it, as has been the case with all of her major works.

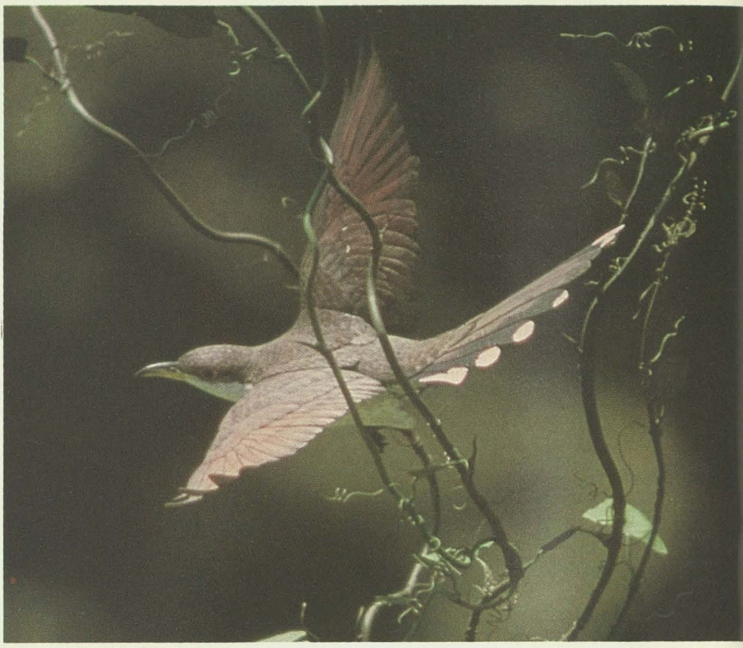
Lynn works much of the time at an unpainted table in the Florida room of the Hannon home. Almost every facet of her work is done by hand but she does have power tools available. Basically her tools are three knives, handmade by her husband Douglas, from sabre saw blades and fish hoods. In addition, she has an inexpensive Japanese carving set which she believes is far superior to better known American tools.

Her power tools include a band saw used to rough-shape the wildfowl body from a chunk of basswood and to cut away some of the excess from the larger feathers that are made separately and fitted into place on the bird. She also has a dental drill for fine grinding and metal work. Metal is used when she wants to support her creations with a minimum of touch to give the illusion of flight. She always arranges the tiniest contact at a support point with a metal feather or foot.

Feet for her birds are carved in hard wax, then cast into stainless steel using a casting technique that is almost a lost art. A master of that procedure, her sculpted birds have feet identical to those that live.

Eyes are as important as any part of the work and often she spends days making and remaking these Pyrex pupils. She learned the art of blowing these glass eyes from Ron Quincel, a master of this craft at the University of South Florida.

"Most of the conceptual work, the most important part of the process of producing flight pieces, is done in styrofoam. I often spend as much time here as in the wood itself, especially when dealing with pieces that include multiple birds. Many models of bodies and wings are remade until the desired design is achieved. This way you avoid the wasted investment of many hours in the wood. Luck should not be considered a factor in this work. Planning and discipline are paramount. A three dimensional working wing is far too complex a thing to trust to instinct in a drawing on a flat piece of paper," this carving perfectionist explained.



Wood sculpture of yellow-billed cuckoo

Lynn's day begins at 5:30 in the morning and she stays with it until about 10:00 p.m., with a little time out for meals.

"These long hours have nothing to do with the art. It just seems necessary to get the work done when you're talking in terms of thousand hour increments of work. There is only so much time in a life and I have so many pieces in my mind that I want to see materialize. I just have to stay with it to get it done at all," she says.

One of the proudest moments of her life occurred last year when the nationally syndicated "Sports Afield" outdoor show filmed her at work and with some of her finished sculpture. Produced by the Glen Lau Productions of Ocala, Lynn's segment is slated to be shown on national networks this year.

Raised in Texas, Lynn always had unusual talents. She was a good pianist before she left high school but quit that calling when "I reached a point that I knew I could never progress further. I was as good as I could ever be and that was far from perfection. If I could not be the very best piano player, then I didn't want to have anything else to do with music. So I quit," she said.

She followed music with painting in oil and water colors. This, too, she pursued with a passion, and a determination to be perfect in all details. While that art was good by many standards, it did not meet the self-imposed criteria of Lynn's own yardstick so she dropped it.

Lynn was enrolled at Tulane University when she met her husband, and they were married shortly after graduation. They moved to Florida and settled close to nature where she works on her wildfowl sculpturing while Doug quietly carries on his own research with the largemouth bass. But she says her severest critic is Douglas who often helps her a little with sharpening tools and advising about the glint in the eagle's eyes or a hawk's toe fit around a branch.

"It has never been important to me that some one else think my sculpturing is the best. It is only important that *I* think it is the best. Most certainly it is important that I think it is the very best *I* can do. The pleasure comes from the good feeling you get when you know you have produced the very best product your talents will allow. Until then, nothing is good enough," Lynn said.

Nothing irritates the sculptress more than to tell her one of her intricate creations "is as good as taxidermy. It looks like a picture." She quickly notes that any mechanic can stuff a hawk in a few hours and paint it and that a photographer can snap a picture of an eagle in a fraction of a second. Her pieces take months, maybe even years, and she does not want it compared to anything easier.

Now at work on her bald eagle, Lynn has completed her study and conceptual effort. She began by reading everything in the library about eagles and then visiting all aviaries to observe her subject while making hundreds of slides and color photos. She consulted such authorities as Dr. John N. Hamlet, a retired naturalist and birds of prey authority, who is interested enough to visit periodically at Odessa to see that she is adhering to the most minute detail of the eagle's features.

There Hannon continues to slave away on the beak, the feet, the eyes, the feathers. Often a single feather will take more than 40 hours before it meets her critical standards. Hundreds of these pieces are fastened together in the exact proportion and identical color to the eagles that soar over Florida streams. Month after month she saws, cuts, chips, sands, buffs and paints until an eagle begins to take shape. When the final touches are made late in 1980, or early next year, it will be a masterpiece. Even the most critical artist's eyes will be able to find few if any flaws. Lynn Hannon will have completed another near perfect piece and the creation will appear ready to fly into the bright blue yonder. ☐

Closeup showing details of kestrels and red-shouldered hawk

Photos by Douglas Hannon

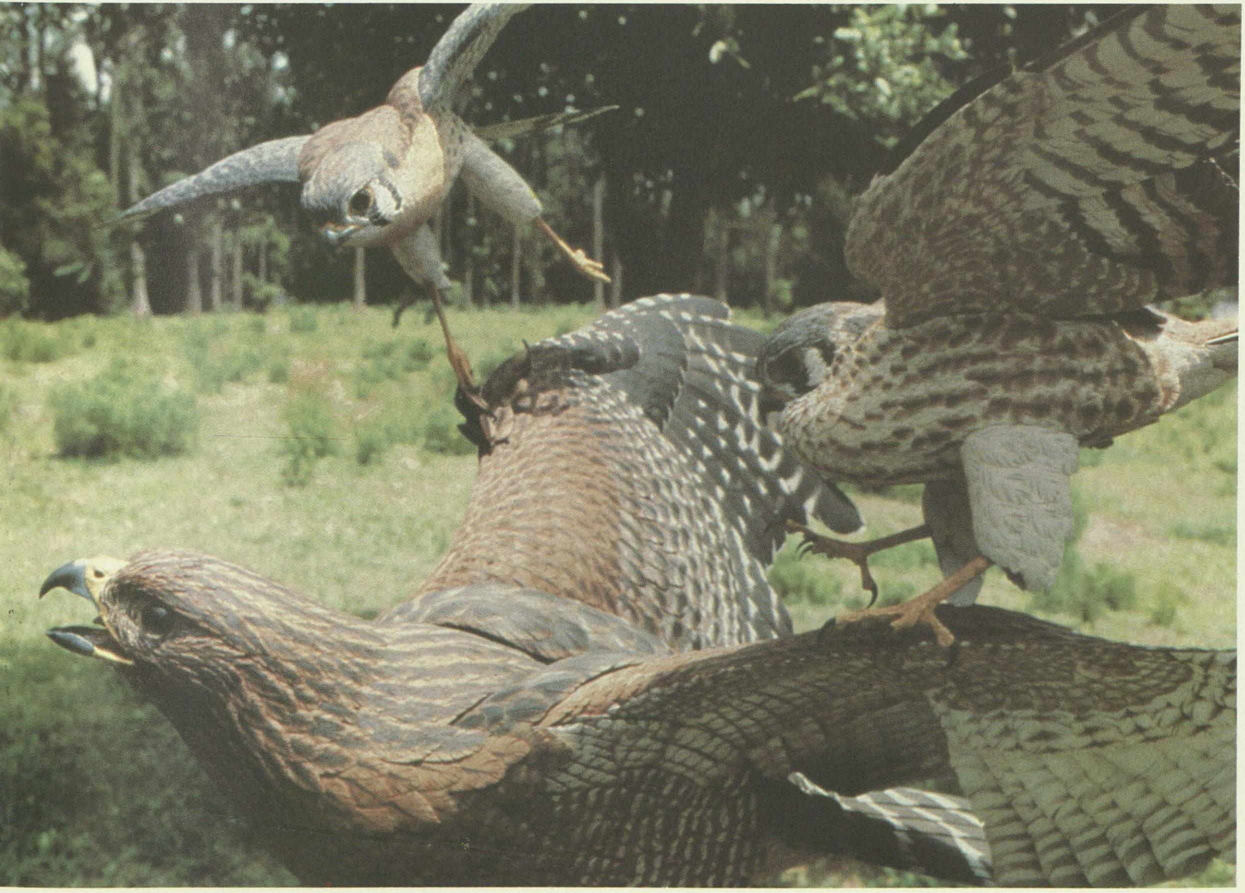


Photo by John Foster

Drawing by Vi Naggiar

Wings of resting dragonfly are held in horizontal position, above. Newly-emerged dragonfly's wings are not yet completely unfolded, left below. A dragon clutches its insect prey, below.

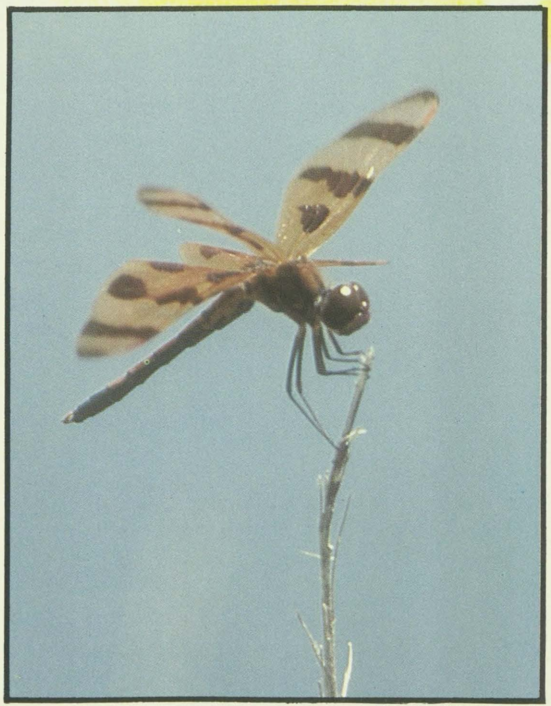


Photo by Pete Walworth

Photo by Benini

BEAUTIFUL DRAGON

Dragonfly is a name well given. Whoever bestowed it saw beyond the adults' sparkling gossamer wings and the attractive bright hues of the elongated body. For the truth of the matter is, from the time it is hatched until it falls prey to another predator or the weather, death is a way of life for the beautiful dragon.

It starts out as a rapacious muddy-hued little ogre of a nymph, stalking sluggishly about its pond-bottom world. Protozoans, larvae, worms, tadpoles, even very tiny fish as well as others of its own kind, are among the prey it seeks.

Making the dragonfly nymph an especially effective hunter is a most unusual prey-capturing appendage. Resembling an arm with a flexible, jointed elbow, it is tipped with paired grasping claws. When the larva has moved into range of an unsuspecting victim, the arm flicks out in a lightning-like move to grasp the prey and carry it to the nymph's mouth. The bizarre part of the matter is the arm is actually an elongated underlip. When not in use it lies folded on the underside of the nymph's body.

Nor is that the only unusual adaptation of the young dragonfly-to-be. Slow moving though it is in its usual wandering about the pond bottom, it has a jet system that can move it with considerable speed. In reality, a two part system, its primary function is respiration. The larva is equipped with gills by means of which the creature is able to breathe by extracting oxygen from the water, in the manner of the fishes. The gills are located at the rear of the body in the lower end of the food canal and water is circulated over them in a rhythmical in and out pumping action. When the nymph is alarmed, it may expel the water with sudden force. The resulting jet pushes the animal through the water in a quick movement that may carry it a foot or more with each contraction.

The dragonfly tribe, the *Odonata,* is a large one, represented by more than 400 species in the United States and at least 4,800 worldwide. As might be expected, details of the life history of the different species varies. In some the nymphal stage lasts a few months, in others a year, two years, or even as long as five years.

Highly predacious, dragonfly nymphs are themselves the object of much attention from other predators. Fish of various kinds prey heavily on them, as do the diving beetles, snakes, turtles, and a host of other hunters.

During its underwater life, the nymph goes through a succession of molts each of which results in a change in size and form. Depending on the species, the nymph may molt as many as 15 times.

Eventually the nymph leaves the water, climbs onto a rock, log, plant stem or other convenient solid resting place. The nymph may remain quiet for a period of time, as if gathering strength for the transformation that is about to take place. Finally a split appears along its back. Now, after some considerable struggling, an adult dragonfly emerges from the nymphal shell.

At first, with its limp, folded wings, it is not too impressive a sight. Soon, however, the wings expand, the legs harden, and the body color intensifies. It may be as much as five hours before the creature's wings are fully expanded and strengthened enough to function properly.

Once airborne, the dragonfly is an adept performer. Those many-veined, deceptively fragile-appearing wings may fan the air with as many as 1,500 strokes a minute. The dragonfly is able to move forward with amazing rapidity and can hover, dive, zoom upward, and fly backwards as the occasion demands.

The voracious appetite that characterizes the nymph is also characteristic of the adult. Most of the food the adults take is captured on the wing. Mosquitoes are frequent prey but a variety of other insects are also eaten. The dragonfly is capable of downing its own weight in food in a half hour and still searches eagerly for more.

Contrary to what you might expect, the dragonfly does not seize its flying prey with its mouth. Instead it uses the six spiny legs, cupped to form a sort of net, to scoop its game out of the air! The victim is overtaken at full tilt, enmeshed in the "net" and rapidly transferred to the mouth.

After mating on the wing, the female deposits her eggs in the water.

The exact manner in which the eggs are placed depends on the species involved. Eggs may be scattered on the surface, dropped in small clumps into the water, or inserted in slits in the underwater stems of plants. There are many creatures that prey on the eggs at every opportunity. Despite the heavy predation, enough eggs survive to ensure a continuing abundance of dragonflies for coming seasons. A single dragonfly has been known to carry more than 100,000 eggs.

As the winter season approaches, food becomes ever more difficult to find. Storm winds and cold take their toll. But no matter, it's nature's way. Secure in their underwater nursery, developing nymphs provide assurance that the warm days of spring will once again see another crop of dragonflies glittering about the ponds and marshes. □

By John Foster

MANAGING
the white-tailed deer

Florida deer management has come a long way since the early 1900s when the first regulation was enacted to protect the sparse and scattered deer herds from further inroads of unregulated hunting. Protection, research and management, especially since the end of WWII, have resulted in a deer population that now occupies virtually every bit of suitable habitat from the sandhills of northwestern Florida to the aquatic expanses of the Everglades.

During the 1970s, some 150,000 hunters a year sought the white-tailed deer in the state. With a yet growing herd, the odds of bagging a deer may be even better now than they were 10 years ago.

Information accumulated by Game and Fresh Water Fish Commission biologists regarding the status and dynamics of Florida deer populations point up the fact that either-sex deer hunting is now both appropriate and timely. On this basis, the Commission has taken steps to liberalize regulations to provide for a harvest of does.

While this may appear contradictory to the agency's earlier emphasis on limited hunting and total protection of does, it reflects the changing status of the state's deer population. Under careful management, we have gone from a notable scarcity of deer to full capacity of the habitat (or range), and more in many locales.

To gain a concept of how doe harvests can be sustained, let's consider some of the characteristics of white-tailed deer populations and more specifically, the physical requirements and functions of the individual animal. A deer must eat food daily, and as this nourishment passes through its four stomachs, it is digested and absorbed into the animal's system as energy. This energy serves two basic purposes—maintenance of the body and reproduction.

The food a deer eats must be gleaned from that which is naturally produced in deer habitat, and the amount of food available in any given area must be shared throughout the year by all deer present. Just as the productivity of our agricultural crops, lawns and fruit trees varies from year to year with climate, so does the amount of deer food produced in our forests. The numbers of deer present also vary, resulting in an ever-changing relationship of available food and consumers. When plenty of food is available, physical condition and reproductive rates are maintained at optimum levels and numbers of deer usually increase. As deer numbers increase, however, and/or food declines, less food must simply feed more deer. This is when a myriad of natural phenomena begin to interplay ultimately bringing numbers in balance with their habitat.

Studies have shown that although bucks and does are ultimately affected in different ways by insufficient rations, the first food that a deer eats satisfies the nutritional requirement of its own body. Less food, in the case of bucks, results in weight loss and poor development of antlers. The number of spike yearling bucks observed is a good indicator of herd condition, because a well-nourished yearling buck should be at least a "fork horn." All spike bucks are at least 1½ years old when you see them during hunting season and this is why any buck with visible antlers above the hairline will be legal to bag this fall.

Response of does to poor nutrition is much more complex because, in addition to their own bodies, they are usually nourishing one or two fetuses. The major growth of an unborn fawn takes place during the last third of a 200-day gestation period. If the doe is low on fat reserves and food is short during this time, the growing fetus will not be nourished until her own requirements are satisfied.

Deficient nourishment of a fetus results in the birth of a small and possibly unhealthy fawn. Under severe conditions, fawns may be stillborn or born too small and weak to nurse. The doe may ultimately lose one or both of her fawns and can be in such a debilitated state that she, too, may die.

Let's take our discussion of deer nutrition a little further. In general, each bite of food a deer consumes is composed of many elements such as proteins, fats, carbohydrates and many vitamins and minerals. Each of these serve a specific dietary need. For example, vitamin A aids the body in maintaining the thickness and strength of skin and other surface tissues covering internal body parts such as reproductive organs. Vitamin K is necessary for production of blood coagulants and globulin, a blood protein produced from consumed proteins, is required for production of antibodies to combat infection. An insufficient intake of any of these nutritional elements renders a deer's system vulnerable not only to basic starvation, but also to attack by disease, parasites, accidents and predation. These perils affect production of fawns and fawn survival as well as survival of adult deer. As complex as all this may seem, the important thought is that these natural mechanisms are some of Mother Nature's ways of allowing deer herds to increase or forcing them to decrease in accordance with conditions of their habitat.

If you can now relate the above to how production of acorns in the flatwoods and trends of water levels in the Everglades can affect deer that inhabit these and other areas of our state, perhaps the design of our hunting regulations is also a little more apparent. The basic objective of regulations is to restrict harvest when numbers are low and liberalize it when numbers are bountiful. This may seem to be taking advantage of opportunity and it is, but in the case of white-tail deer, liberalized harvest is also an essential herd management tool. Harvest, if appropriately applied during latter periods of herd growth, can actually assist the population in remaining in better balance with its environment. Deer are numerous in most areas of the state and, in fact, are causing serious crop damage in some places.

We are now to the point where the efforts of a long-term deer management program are to bear fruit and you, the sportsman, will be the recipients through liberalized either-sex hunting in forthcoming seasons. This does not mean, however, that our work is over. As we prescribe either-sex harvest strategies in various areas of the state, we will also be gathering data to monitor these herds to interpret their responses to new harvest levels. Age structures, sex ratios, parasite loads and a myriad of other information will tell our biologists a great deal about the health and growth of any given deer population. □

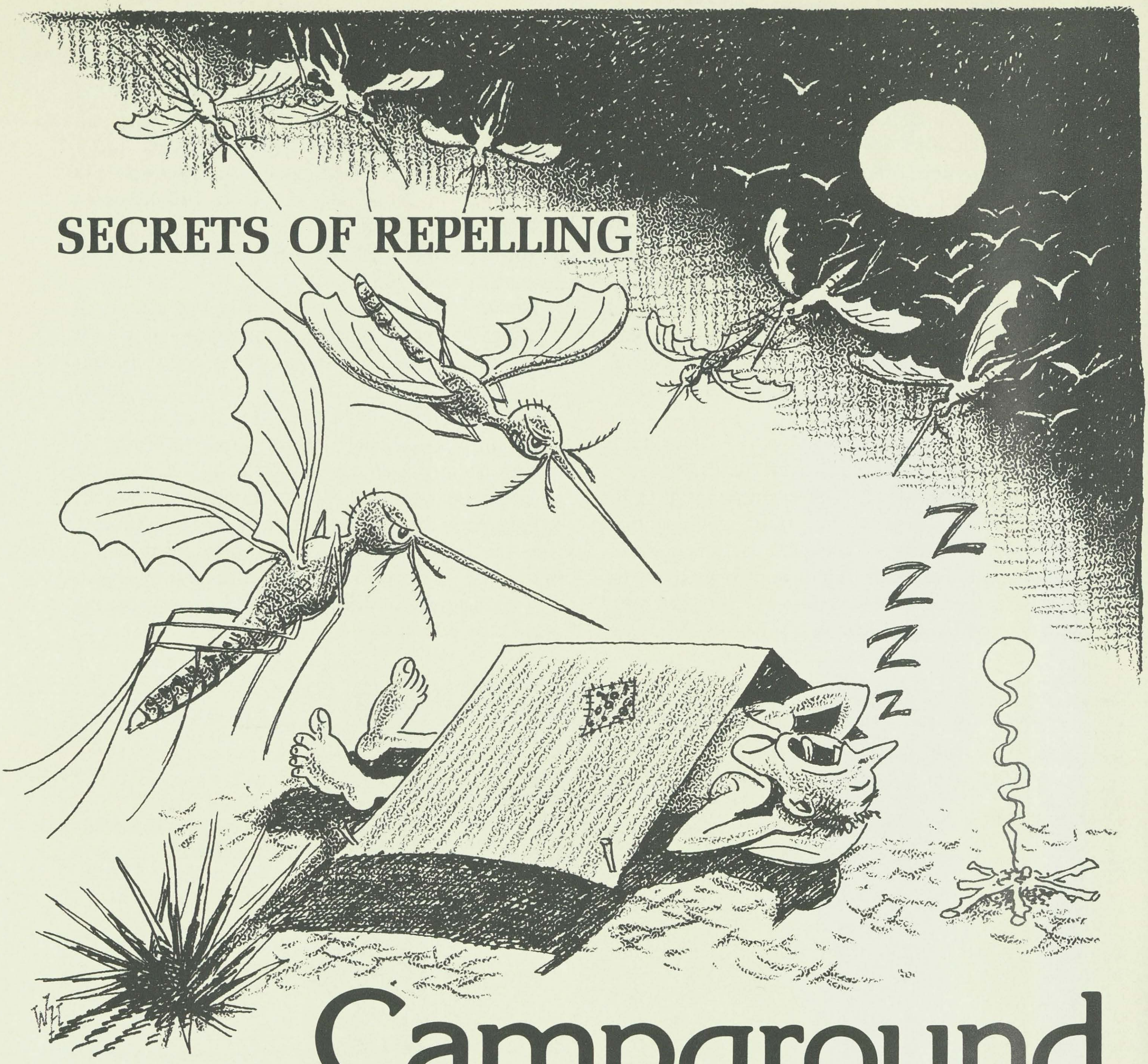
Photo by Leonard Lee Rue III

Information accumulated by Game and Fresh Water Fish Commission biologists regarding the status and dynamics of Florida deer populations point up that either-sex deer hunting is now both appropriate and timely. On this basis, the Commission has taken steps to liberalize regulations to provide for a harvest of does.

By Tom H. Logan

Chief, Bureau of Wildlife Research

SECRETS OF REPELLING Campground



Drawing by Wallace Hughes

I was dozing fitfully, soaked in perspiration from the 90-degree heat, when my internal alarm suddenly sounded Red Alert! Bolting to a sitting position in the cramped umbrella tent, I was not immediately aware of the eerie change that had aroused me.

Listening hard and concentrating in the gloom that shrouded Big Pine Key, it occurred to me that it was not an unfamiliar noise, but the *absence* of sound that prompted my prickly scalp.

The wind had died. Only a true Conch or a seasoned Florida Keys camper knows just how important the wind is. In less than a minute, the three other slumbering members of our party were about to receive a painful lesson in survival.

Silently they came, ravenous beasts of the night, so miniscule no screen or mosquito bar could turn them, biting relentlessly and inflicting stinging pain out of proportion to their tiny bodies. Sand gnats. The nearly invisible bane of man and beast in coastal and sandy areas, held at bay only by the wind.

My wife, Donna, awoke with a frenzied shriek as clouds of no-see-ums settled over us and began their grisly work. "Something's eating me," she cried.

"It's sand gnats, Honey. Quick! Let's cover up with the sheet."

"But it's so hot. I can't stand to perspire, gnats or no gnats."

"O.K. by me, but I'd rather sweat than be drained bloodless by these little vampires."

About that time our camping companions, Ronny and Carolyn Young, began framming around in the makeshift shelter in the open bed of their pickup.

"Hey, Ronny," I hooted. "Guess who's coming to dinner?"

By his answer I guessed they wasn't having near the fun we were: their only escape from the bugs was insulated sleeping bags. Finally, he quit muttering long enough to shout, "Hey, in there, the mosquitoes and gnats are about to carry us off. Got any insect repellent?"

"Yep, we've got some," I retorted. "But I figure we're going to need most of it. Besides, it's in here and you're out there!"

"Some friend you are," Ronny countered, "bringing us 250 miles just to be cannibalized by the wildlife."

After a little urging from Donna to render aid to the hapless couple, I dosed myself liberally with the bargain bug dope of the week (unceremoniously purchased at the last minute) and courageously crawled out into the black heat to face the bloodsuckers. I was instantly enveloped in a choking cloud of winged fury as hordes of gnats and mosquitoes homed in on my swimsuitclad form. To my horror, the vampires did not buzz off as expected, but proceeded to dine a la carte, despite my repellent. They actually seemed to enjoy sliding around in the goop.

Scrambling over tent pegs, I lurched toward the pickup and tossed the repellent in the general direction of the slapping noises. "Here you go, Ron, keep the whole can . . . with my compliments." Beating a hasty retreat, I made three whirlwind passes around the tent to dislodge hitchhikers and vaulted through the screen door.

Vampires

By Kyle Hill

Chuckling, I once again sought the safety of the sheets. The steady hiss of the spray can of repellent was audible above the commotion emanating from the truck. Silence, then more spraying, followed by slaps and groans.

"Hey, what is this stuff anyway?" Ronny sneered, "It's attracting them. They love it."

The rest of Ronny's protest is not suitable for printing in a family magazine.

As I try to look back humorously on that miserable night, the lesson learned merits repeating: *selection of the proper insect repellent is just as important as the right tent, backpack, or knife*. The last-minute choice of such an important camping tool is likely to lead to a dismal fate. The bargain bug dope of the week may turn out to be the flavor of the month.

Your comfort and happiness in the summertime outdoors is directly proportional to your knowledge and ability to fend off biting insects. As a Florida wildlife officer, I have had ample need and opportunity to test nearly every type of insect repellent on the market. In fact, mosquitoes seem to *prefer* wildlife officers above all other hosts. Perhaps it's just our availability, but in any event, what I have learned through experience, trial and error, and judicious study could help you enjoy the outdoors more than ever.

What attracts biting bugs?

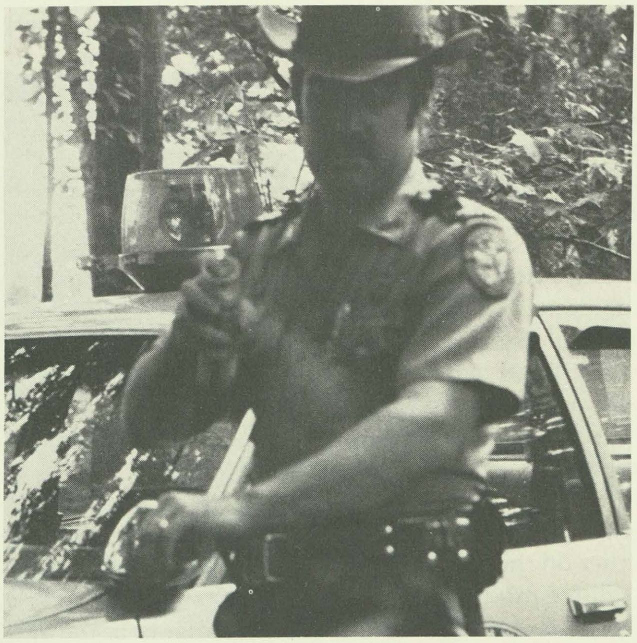
As you've probably noticed, biting insects can be finicky eaters. Generally, they seem to prefer *you* over persons that may be nearby. This is due to a combination of complex factors called insect appeal.

Skin odors have been found to play a relatively minor role in the host-seeking activities of mosquitoes and other insects. The attractiveness of human skin is due primarily to visual stimuli in conjunction with warmth, moisture and transpired carbon dioxide. The chemical composition of your breath combined with the amount of body heat emitted largely determines your insect appeal. Presumably, a thin person would be more attractive to a mosquito than an obese one, for a slim-jim individual has a higher metabolic rate.

In their front legs, mosquitoes have built-in heat detection systems that operate similar to radar. The blood-suckers don't confine their attacks to man, for other animals of considerable variety, including amphibians, reptiles, birds, share the honors with the mammals.

The visual stimuli that attracts insects are related

Photo by Donna Hill



Wildlife officers seem to be especially appetizing to biting insects. An officer prepares for patrol with some "sprayin" and "slappin."

to the amount of light reflected from the subject. Dark (warm) colors are preferred over lighter ones. Dr. W.R. Brown of the University of Western Ontario conducted exhaustive experiments with mosquitoes in which progressively lighter hued clothing was placed on human silhouettes. The dummies were rigged so that carbon dioxide was emitted from them in a rhythmic fashion simulating breathing of a human thus attracting mosquitoes to the test forms. White clothing brought in only one-tenth the number of mosquitoes black clothing did.

So then, the primary attracting factors can be controlled to a degree. In fact, if you remained motionless and held your breath, theoretically your biting insect problem would be significantly reduced.

Exercise seems to attract insects because of increased body heat, moisture and exhaled carbon dioxide. Therefore, reducing insect appeal can be as simple as wearing khaki or other light-colored clothing and keeping exercise to a minimum.

Although insects are not generally attracted by body odor, this is not to say that they do not have sense of smell. After all, it is the unpleasant close range effect of repellent on their "chemo-receptive cells" that makes the bugs bug off!

Are all personal insect repellents essentially the same?

Absolutely not! All insect repellents are not created equal. The U.S. Environmental Protection Agency licenses insect repellents and validates them to determine safety and effectiveness. Manufacturers must submit technical data to the E.P.A. to prove that their products repel certain insects. If the repellent has not proved effective against say, sand gnats, the manufacturer may not list sand gnats on the label.

Since most repellents contain essentially the same two chemical ingredients, the primary difference in effectiveness is due to the amount of active chemicals present. A listing of active ingredients and their percentages is required by law. A commonly used major ingredient is N, N-diethyl-meta tolumaide. Let's call it deet for convenience. Deet is a broad spectrum repellent that is effective against a host of biting insects. If you don't know what biting insects are going to be in an area, a product with deet will probably keep them away. The "other Isomers" generally listed as ingredients of bug dopes are merely alternate chemical forms of deet.

Another chemical that appears as a major ingredient in a number of products is 2-ethyl, 1,3, hexanediol. It doesn't repel as many different insects. In my experience, products with hexandiol usually feel oilier on the skin than those compounded with deet.

Some products contain both deet and hexandiol.

The concentration of active ingredients is the key indicator of a repellent's effectiveness. Products on the market presently range from 100% active ingredients (Isomers are added in) to 15% active ingredients. Obviously, "inert ingredients" make up the difference. Inert additives serve as propellents, coloring, fragrance or substances that aid in the spreading of the repellent.

Spray, liquid or stick?

Sprays usually contain the greatest percentage of "inert ingredients" because they generally have pressurized propellants taking up a lot of space thus precluding high concentrations of active ingredients. In fact, a spray that sports 30% active ingredients is about the best you can hope. Sprays have an advantage in that they are easy to apply to clothing and they can also be sprayed on screens to discourage the entrance of sand gnats. Disadvantages are their bulky size and lack of active chemicals.

One liquid presently on the market claims 100% active ingredients. Another popular brand has 90%. Sticks, creams and towelettes also contain high concentrations of ingredients and are convenient to carry. They usually repel longer on a single application than do sprays.

Whichever form you prefer, shop around and pick the particular type that offers the highest percentage of total active ingredients.

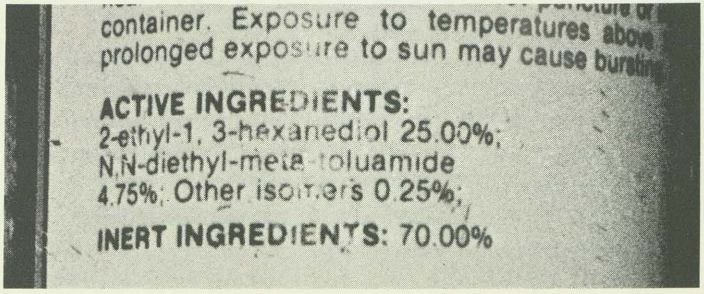
The Environmental Protection Agency and *Consumer Reports* advise that a good repellent should last at least an hour. My experience shows that 30 minutes for the average repellent (15 % to 25% active ingredients) in highly infested areas is a more reasonable figure. To say that these products repel for a certain period doesn't mean that insects won't buzz around you constantly. It simply means that they should not attempt to have you for lunch for a spell. When they start landing, walking around and picking "the spot," it's time for another application of repellent.

Of course, if you get rained on, perspire or swim, you are once again fair game!

"Miracle" repellents

So much for the common garden variety repellents. But what about the more exotic kind? Like orally-taken pills that promise relief for twelve

Photo by Kyle Hill



container. Exposure to temperatures abov
prolonged exposure to sun may cause burstin

ACTIVE INGREDIENTS:
2-ethyl-1, 3-hexanediol 25.00%;
N,N-diethyl-meta-toluamide
4.75%; Other isomers 0.25%;

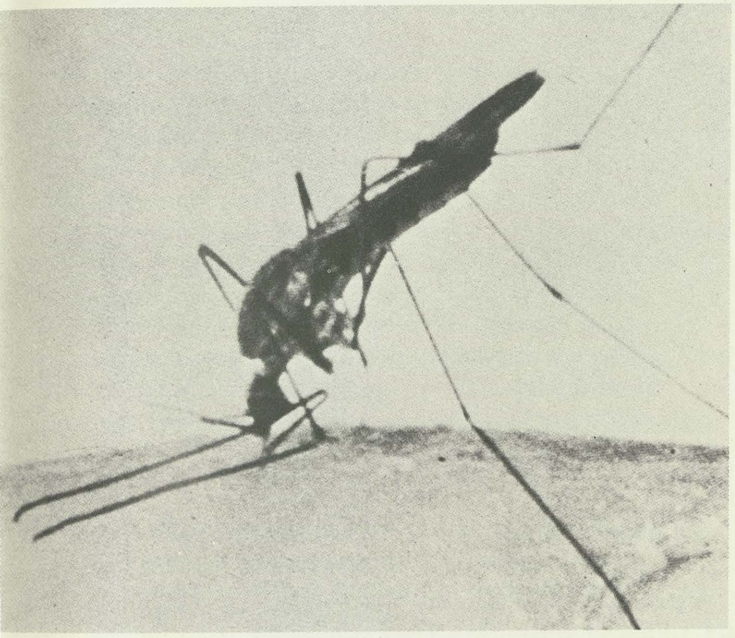
INERT INGREDIENTS: 70.00%

Label above indicates this product contains 30 percent active chemicals, about optimum for a spray type. Only female mosquitoes bite: males feed on plant juices. Capt. Hill tested products shown plus Canadian import, Muskol.

hours, or 100-proof repellents that claim they are not affected by rain or perspiration. How about Avon Skin So Soft? Well, each of these products were tested on the job as well as in my private laboratory (lawn chair in backyard). Here are the results.

The idea of orally taken pills to repel insect pests is a fascinating one. Theoretically, odor generated by the ingredient "thiamine" is designed to keep mosquitoes and biting flies at a distance. In my tests, which involved several weeks of taking the pills, they definitely appeared to help . . . but for me, at least, did not offer total protection. Mosquitoes continued to light and bite, even after I'd doubled the recommended dosage. Several times it was necessary to supplement the pills with a good quality spray repellent in order for me to survive testing sessions!

Photo courtesy Henry Janowski



Avon Skin So Soft is a perfumed bath oil that is popular as a repellent in some areas of Florida. I rated it on a par with commercial brands having a concentration of 25% or less active ingredients. In highly infested areas, I found it necessary to reapply every 30 minutes. Skin So Soft was effective against sand gnats as well as mosquitoes, but its perfumed odor made it difficult for me to convince my wife that I had actually been on night patrol! It's a good choice, though, for women who don't care for the odor of commercial repellents and don't mind repeated applications.

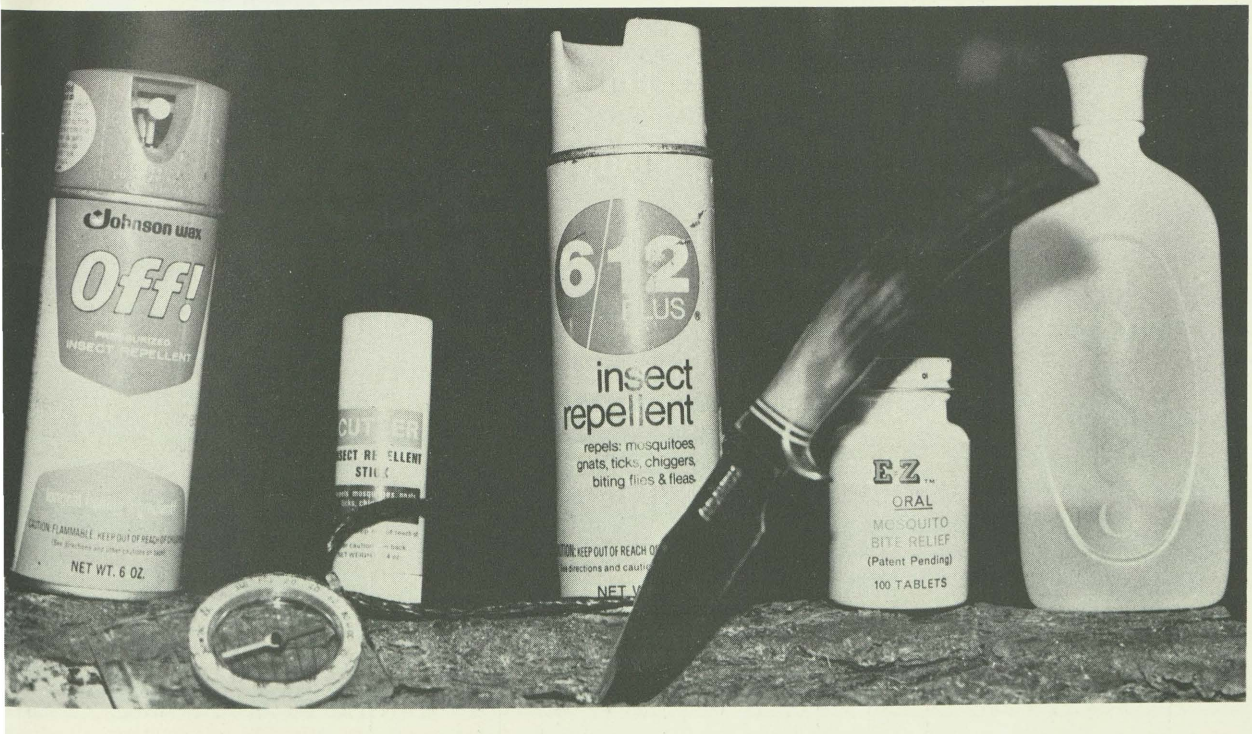
The most effective repellent that I have come across is Muskol, a Canadian product that contains 100% active ingredients. It dries, is not sticky and is quite resistant to perspiration. Thus far, it is the only product I have tested that will keep insects at bay for several hours, in highly infested areas, *without* a reapplication.

What happens if you're caught without a repellent?

You suffer! That is, of course, unless you remember to sit in front of a smoky campfire, or rub crushed wild onion, fern or elderberry leaves over exposed areas. These measures help, but are certainly no viable substitute for a premium quality commercial repellent.

Face it: with or without repellent, there is no escaping them. They are out there, waiting just for you, whether you are a camper, birdwatcher or canoeist. They can be little nuisances or play the starring role in a painful nightmare. It all depends on your **preparation** and **ability** to make yourself as unappetizing as possible! ☐

Photo by Kyle Hill



HUNTING

By CHARLES DICKEY

Big, social shoots are popular, but there are plenty of opportunities for the unattached dove hunter.

In number of birds harvested, the mourning dove is the most popular game bird in Florida and America. About 13 percent of a national flock of 500 million are knocked down in an average year.

The main problem with dove shooting is that when hunters are concentrated in one field, the birds are often in another. In many parts of Florida, there is so much feed available that when the gunning pressure builds, the doves simply move someplace else to feed.

Part of this is due to the fact that many shooters prefer to hunt in social groups of from 10 to 40 or more. To them it's not a dove shoot unless hundreds of birds are zooming a field with a score or more of shotguns booming away. For many this is a traditional way of shooting, often followed by a barbecue.

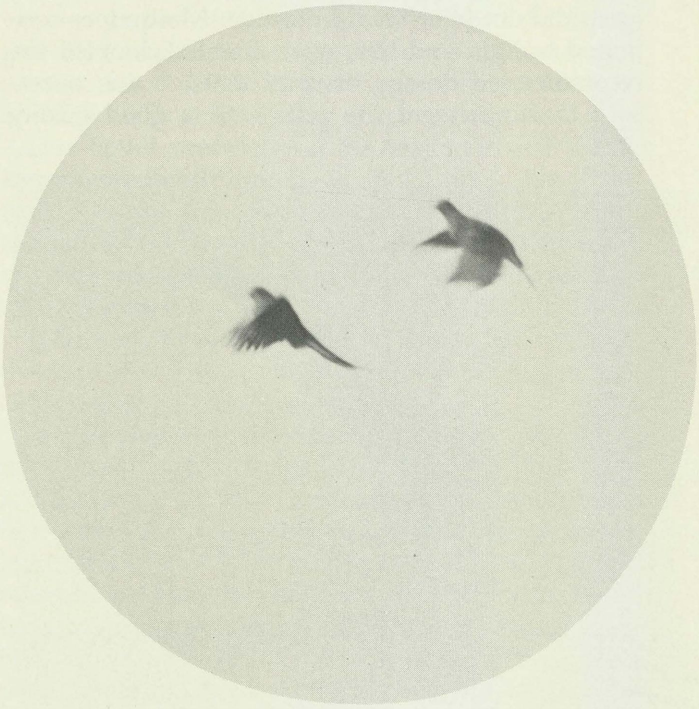
One big shoot usually "burns out" a field for a week or two or perhaps the remainder of that part of the split season. It takes time for a large number of birds to start using the field again.

With a large shoot, it seems that some gunners always start early and some don't begin until late but stay until sunset. That means someone is blasting for three or four hours and the birds never get a chance to land and really fill up with feed. In a sense, the birds are forced to find another field.

There's nothing wrong with the big social shoots. Large landowners pay off social debts with them and also use them for public relations with bankers, doctors, equipment dealers and others they do business with. The big shoots are also a way of returning favors to friends and staying on speaking terms with relatives.

However, a lot of hunters have gotten the idea that it's not a dove shoot unless you have a big crowd of gunners and hundreds of birds flying to legally baited fields. Nothing could be further from the truth.

Two gunners can have an ideal dove shoot. In fact, two gunners can shoot a field, pond or near a roost time after time without driving the doves away. To begin with, two hunters can control themselves. They can get in, shoot their birds and get out and give the birds a chance to feed, drink or roost. They can agree ahead of time to leave a field at a certain time regardless of the birds bagged, and do it. There's no way a group of hunters can be managed that way.



A pair of hunters do not need jillions of doves to get a limit or close to it. They can shoot small fields that big social shoots wouldn't even consider.

If a pair of hunters shoots a large field, a lot of doves will land, feed their fill and depart. That's all right. Those doves will be back the next day. But if the two hunters carefully study the incoming flights, they can usually pick up a pattern. They can move around, get under a flight line, build a quick blind and get some shooting. Maybe they even have to keep walking the edge of the field for shots. But the name of the game is hunting, isn't it?

Two hunters can often find pass shooting, where doves are flying over with no intention of landing. They may be flying from a loafing woods to a distant feeding field. While two hunters might not break up the flight pattern, 20 hunters would. The pair may be able to come back time after time.

The same is true for water holes. After the doves feed in the afternoon, they usually fly to water. Let's say two hunters are shooting a four-acre pond. They can't cover it so most of the birds will get through to drink. The hunters enjoy a reasonable amount of shooting and get out. The doves come back the next day.

Where fields or open woods have been burned recently, the ground is bare but often strewn with hard seed the birds like to feed on. A lot of controlled burning starts in the latter part of the dove season. Doves frequently move into the burned areas to feed, not in large numbers but enough so two hunters can have some shooting.

Sometimes the burns offer good jump shooting. At other times, the two hunters spread out and wait for the birds to arrive. Once in awhile, there's a situation where one hunter waits at the end of a rectangular burn and the other hunter drives it. This may require a little work but it also can result in some sporty shooting.

It's a far cry from the social shoots where a vehicle drops you off at a blind or stand and checks by every hour to refresh you with a cool drink. At some of the more elaborate social shoots, the hunters are provided with pickup boys and the only exercise the gunners get is loading their guns.

Some of the trickiest dove shooting is when a pair of hunters set up on a flight line near a roost. If the roost is not shot, the doves will probably keep coming back. There is a period of 20 minutes, 30 at most, when the doves zoom in and with luck you can fill your limit.

Since the light is low, and the shooting time short, it pays to have a retriever such as a Labrador. You don't lose time looking for downed birds and you can concentrate on the fast shooting and reloading.

With two hunters, you can agree to stay well away from the roost and not burn it out. If there are 10 hunters, there's not a chance of this. One or more hunters will wind up right under the roost blasting away and drive off the doves.

Another advantage of two hunters is that they can go in together with a farmer and pay a small fee to have odd areas planted in dove feed. They do not have to have huge areas because they don't need hundreds of doves at a time. It's true that doves like large open fields but only a small part need be planted with dove feed.

Many hunters don't realize how liberal the planting regulations of the U.S. Fish and Wildlife Service are for attracting doves. You not only can plant and shoot over it but you can knock the feed down to make it convenient for the birds. What you can't do is harvest the grain and put it back in the field it grew in or another. You can't tote it.

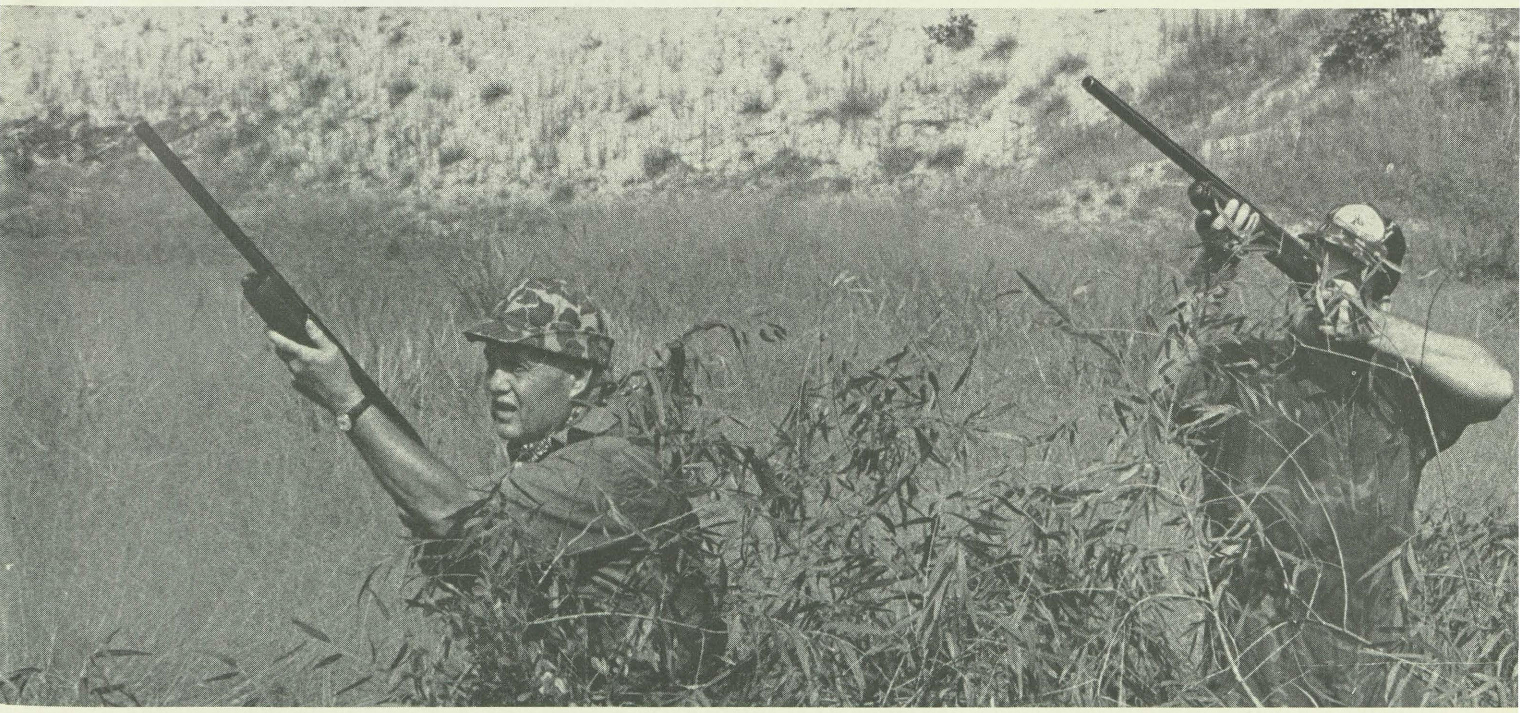
The ideal arrangement for a couple of hunters is to find a farmer who likes to shoot doves. The hunters pay for the cost of seed and fertilizer, the farmer plants the seed and all three enjoy the shooting.

There's still time to plant fast-growing crops for doves such as brown-top millet which matures in about 60 days. Check your county agent or regional Commission office for information.

One of the best setups for small shoots I ever saw was a collar of brown-top planted around a four-acre pond. The millet was knocked down and the doves could feed or drink with their feet on bare ground or close to it. I think that much of the key to success was that doves prefer their feet on the ground and that's the way they had it. Also, they were shot only for short periods on any day, regardless of anybody's bag. ☐

A flight line near a roost or watering place may offer excellent dove shooting for a hunter or two, but would hold little enticement for a larger group.

Photos by Charles Dickey



CONSERVATION SCENE

Paddlers Brantly, left, and Quincy.

Photo by Walt Meggison

CANOEING for the COAST

Arrival at Fort Clinch State Park in Fernandina Beach on April 5 signaled the end of a 56-day tour around the perimeter of the state by canoe for Peter Quincy of the Florida Audubon Society. The Canoe-athon was staged to call attention to coastal conservation problems during this *Year of the Coast.*

Quincy's jaunt began on February 6 at Pensacola Beach with the temperature hovering around 30 degrees. As he traveled the rim of the state, he encountered a wide range of weather conditions; wind, fog, rain, high seas, and finally, warm spring weather.

One feature of the trip involved frequent changes of canoeing partners for various stretches of the route. Some 71 persons took turns at the bow paddle. Included were people from all walks of life—politicians, business and professional people, teachers, career conservationists and others.

Game and Fresh Water Fish Commission Executive Director Robert Brantly paddled one stretch of the trip in the Panama City area.

"I think the Society's objective of increasing the public's awareness about the need for a comprehensive coastal resource plan has been achieved," commented Quincy. "Now citizens must take that concern and elect decision-makers to public office. There is still time to save a good portion of our coastline, but we don't have a moment to lose."

WILDLIFE OFFICERS PITCH IN

Even more variety than usual was the lot of Commission wildlife officers in south Florida this past spring. From May 1 - May 11, agency enforcement people put in 5,900 man-hours on the Cuban refugee situation. Then from May 18 through May 22, wildlife officers were called on to help handle the civil disturbance in Miami.

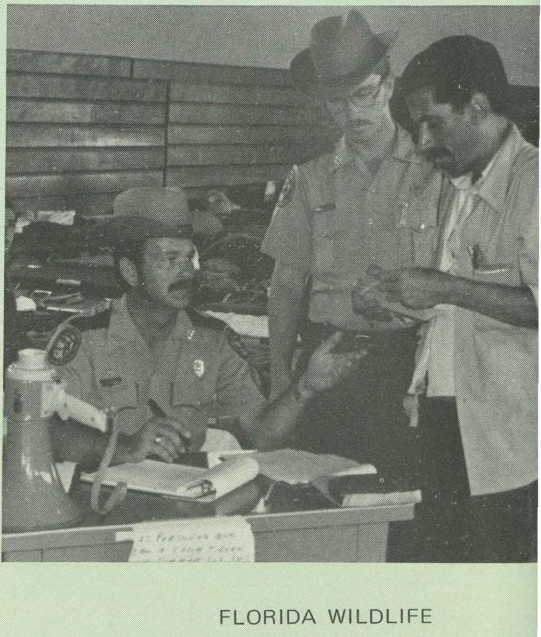
Cuban Refuge Holding Center, National Guard Armory, Homestead, Fla. Seated: Sgt. Larry R. Johnson, Lake City, Standing: Sgt. Paul Hoover, Tallahassee.

BARRIERS AGAINST THE SEA

The barrier islands are a series of thin, elongated strips of sand standing close to shore, extending from the coast of Maine south to Florida, around its tip into the Gulf of Mexico, and all the way to the shores of Texas. There are approximately 300 such islands, ranging in size from less than 50 acres to well over 100,000 acres, and totaling about 1.6 million acres. Of these, approximately 621,000 acres are managed by federal, state or local governments, and 986,000 acres are under private ownership. Over 243,000 acres are considered to be developed while 625,000 acres are protected from future development.

These islands, and our coasts in general, are under heavy pressure. The population in the coastal counties in 1970 was 19,800,000; the rate of population increase between 1960 and 1970 was more than four times the national rate, and the population

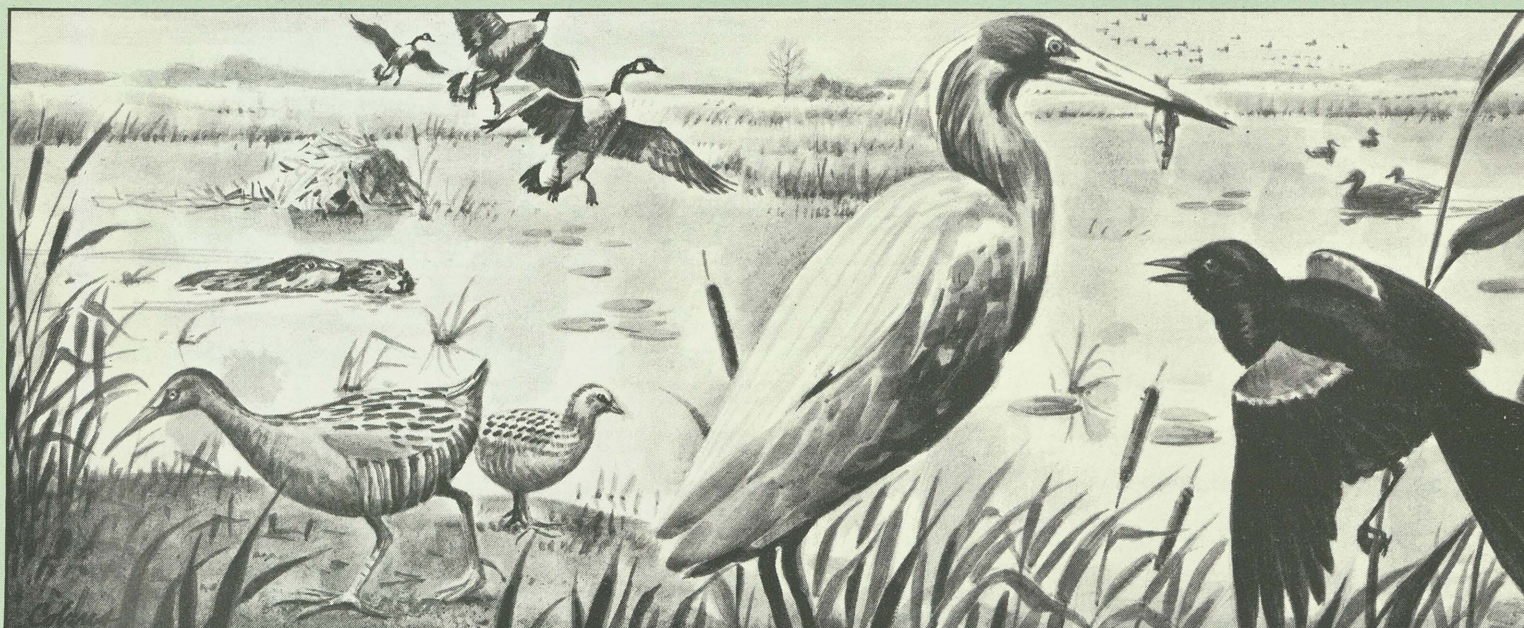
Photo by Don Kelley



density per square mile was more than four times the national average. Every year, 6,000 acres of land on barrier islands become urbanized.

Permanent human habitation on barrier islands is hazardous for several reasons. First, sand routinely moves about while the works of man require stability. Lands now considered safe for building may simply disappear within a few years. Secondly. the islands are vulnerable to hurricanes and other storms. Storm waves breach and overwash the dunes and entire sections of an island can be inundated or severely eroded. Thirdly, sea level is slowly but steadily rising, averaging about one foot per century along the mid-Atlantic coast.

Yet, development goes on. In fact, much barrier island development is subsidized through programs of the Army Corps of Engineers, the Environmental Protection Agency, the Department of Transportation, the Small Business Administration, and a plethora of other federal aid programs. Yet, while private interests and the federal government are blanketing barrier islands with roads, jetties, seawalls, and housing developments, nature is just as ardently shifting, eroding, modifying, and defying our designs. To make matters even worse, the federal government, through the flood insurance program and disaster relief funds, pays to rebuild communities on the same location once they have been partially or completely destroyed by storms. Moreover, high-hazard coastal areas are so over-developed, despite flood insurance regulations to the contrary, that even normal storms cause damage and cost taxpayers millions each year. There is little doubt that it would be cheaper for the federal government to buy the undeveloped barrier islands than to continue subsidies for development and disaster relief. *–Sierra Club National News Report.*



THE MARSH of PROGRESS

America's marsh and wetland areas provide essential habitat for a host of wildlife species, from puddle ducks and herons to muskrats and marsh hens.

Unfortunately, we have already lost millions of wetland acres and continue to lose thousands more each year to drainage and development. Yet progress of a different kind has also been made.

Over the years, our state and federal wildlife agencies have worked to acquire and restore critical wetland areas. Revenues from duck stamp sales, for example, have provided for the acquisition of some 2.3 million acres of aquatic habitat. An additional 1.5 million acres have been purchased with funds from special taxes that sportsmen pay. And organized waterfowl clubs are responsible for maintaining over 5 million acres of prime wetland areas.

Of the some 13.5 million acres of migratory bird habitat remaining in the United States, over half has been preserved through the efforts and dollars of American sportsmen.

For more information write to: NSSF
National Shooting Sports Foundation
1075 Post Road
Riverside, Conn. 06878

THEY'RE HERE TO STAY!

Ask a visitor to Florida what is one thing he or she wants to see while in the state and, nine times out of ten, the word "alligator" comes up.

These adaptable armored reptiles are very much a part of the attraction of Florida. Nowhere else in the country are alligators found in such numbers.

And they are found everywhere. Every county boasts a population in its lakes, streams, ponds, marshes and on its golf courses. Some alligators have even been found on saltwater beaches.

Once on the brink of extinction, the alligator has proven its resourcefulness and, thanks to protection, now has repopulated to the extent that it is a common sight throughout the state.

Both alligators and people share similar likes. When the summer sun starts to beat down, Floridians tend to congregate near the water where alligators are likewise gathering.

This continued proximity has helped lessen alligators' natural fear of man. Couple that with the all too prevalent habit some people have of feeding the creatures, and a potentially serious problem exists.

It is against state law to feed an alligator. Although they are predators, alligators will accept an easy meal. It doesn't take long for an alligator to associate humans with food. When that happens, an alligator will start hanging around where it is fed and will come right up to anyone who approaches. As you can imagine, this often results in serious consequences.

Being nocturnal feeders, alligators are attracted to the sounds of splashing. For that reason, the Commission urges everyone to be careful and refrain from swimming at dusk or after dark in areas where alligators are found.

There have been confirmed reports of unprovoked attacks by alligators. Almost all took place on or near water at dusk in areas where alligators had been seen.

By exercising good judgement and having respect for alligators, incidents between people and alligators can be minimized.

But if a large alligator (six feet or over) is representing a serious threat to people or livestock, there is a remedy for this. Contact the nearest office of the Commission (the toll-free number is on the inside front cover of the telephone book).

Alligators are a threatened species and as such are protected. Only authorized agents of the Commission may handle nuisance alligator complaints. If, after an investigation of a complaint, it is determined that the alligator is a threat, an agent of the Commission will deal with the problem.

Since his appearance some 100,000 years ago, the alligator has filled a vital role in the natural ecosystem.

Through respect and understanding, man and alligator can continue to occupy the earth together. *—Trisha Spillan*

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FLORIDA WILDLIFE

*Dedicated to the appreciation
and enjoyment of our wildlife heritage,
and to a fuller understanding of
efforts directed toward the protection,
restoration, enhancement,
and wise use of our natural resources.*

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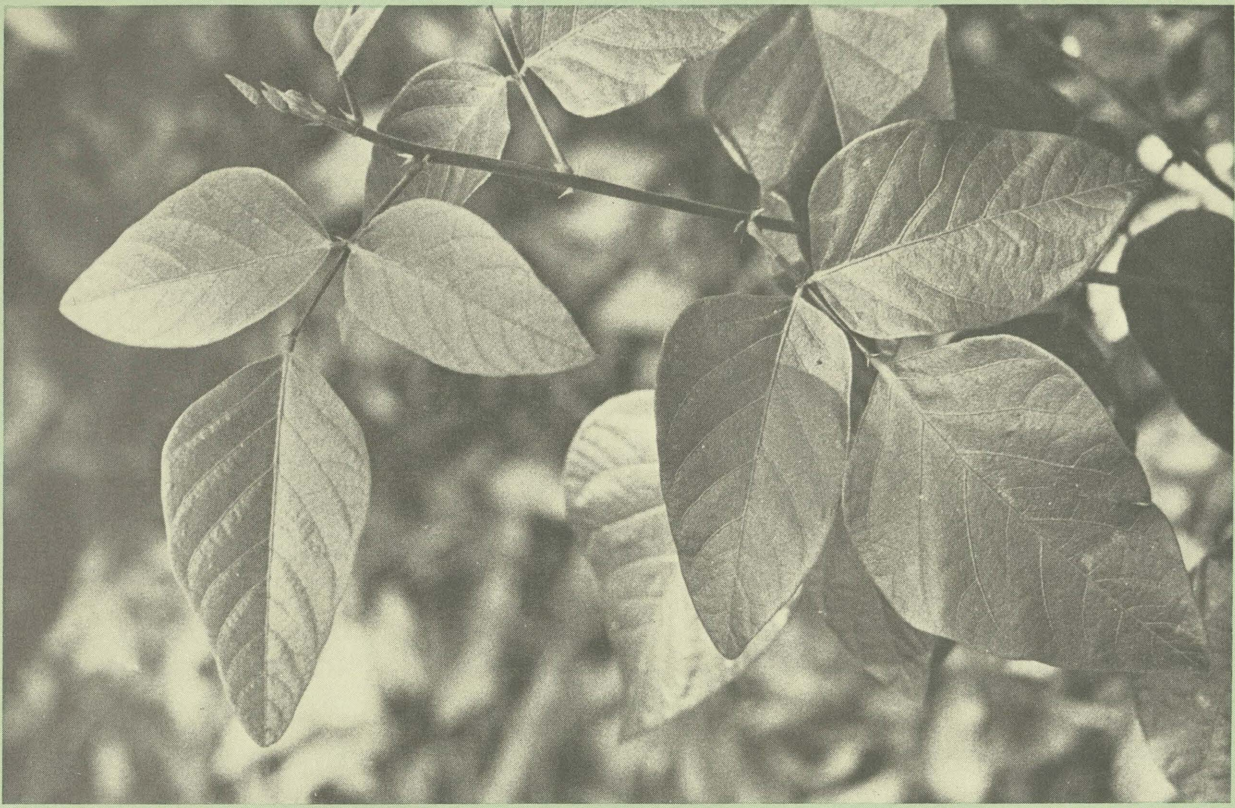


LEAVES OF THREE

Photo by Wallace Hughes

POISON IVY

Poison ivy ranks right up there with mosquitoes, yellowflies and other insect pests on the list of things the outdoorsman had just as soon not encounter but can hardly avoid. For a plant that is so widely distributed—throughout the country for all practical purposes—there is a surprising lack of ability to recognize it. Failing the identification test may result in anything from a mild rash to a severe skin eruption that calls for professional medical attention and prolonged treatment. You can get an argument out of a good many woods wanderers regarding the name and relationship of the variations of this group of plants. Some say poison ivy is the same as the leathery-leafed poison oak of the Pacific states and the oakleaf poison ivy found elsewhere. At any rate, the scientific genus of the group is *Rhus* and the irritant is a toxic substance, urushiol, present in the resin of these plants. The trademark of poison ivy is the arrangement of the leaves in groups of threes. Early in the growing season they are frequently pale green, growing progressively darker as the season advances. The leaves, usually between two and four inches in length, may be smooth-edged or toothed or have slight lobes. In form, the plant may be a short shrubby growth or a climbing vine that runs high into the tree tops. In the fall, the leaves are attractively colored in reds and yellows. Best advice regarding this plant is in the old rhyme: Leaves of three, let it be.—Morrie Naggiar

UGLY IVY RASH

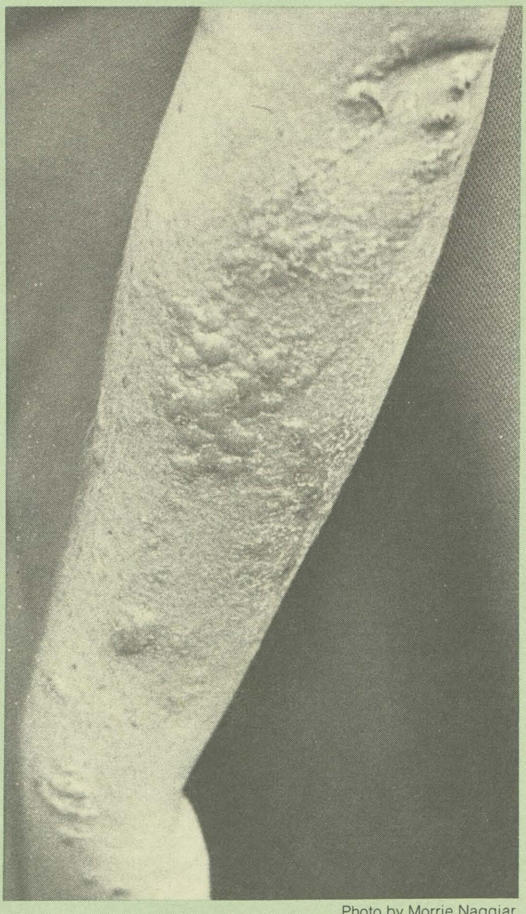
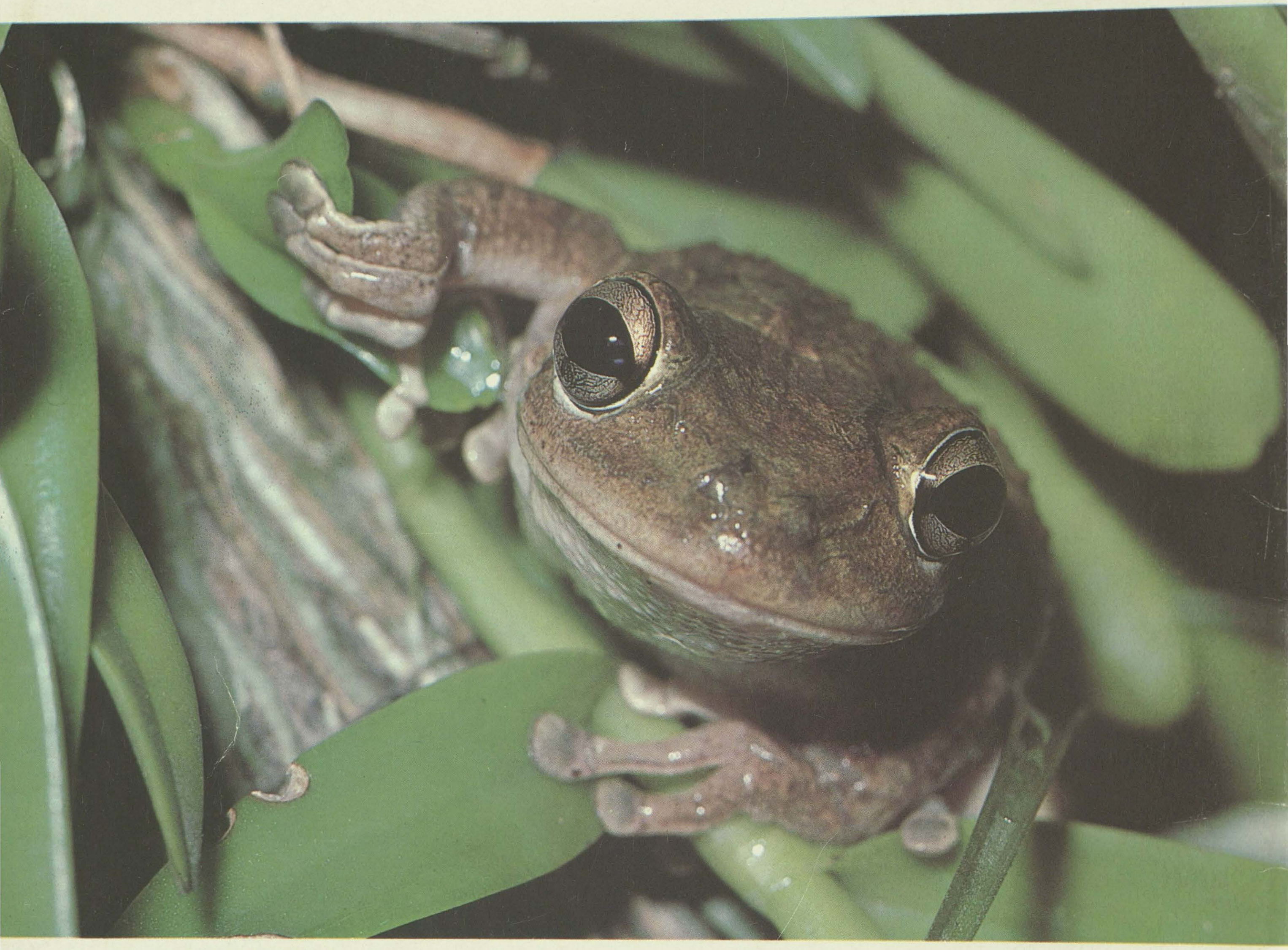


Photo by Morrie Naggiar



CUBAN TREE FROG

Photo by Lynn Stone

The Cuban tree frog of southernmost Florida occurs also in Cuba, the Bahamas and some of the other islands of the Caribbean. About twice the size of our common green tree frog, mature specimens measure four inches or so in length.